

Catalogue of the papers and correspondence of

Sir John Cowdery Kendrew FRS

(b. 1917)

VOLUME II

Sections G – K

by Jeannine Alton
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SECTION G

EUROPEAN MOLECULAR BIOLOGY CONFERENCE (EMBC)

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INTRODUCTION

The material here is of special interest in combining the small-scale private exchanges between individual scientists and colleagues with major démarches on an international level, and in showing EMBO members moving willy-nilly into politics and diplomacy and contriving on the whole to carry the day for their scientific causes. The papers on "Early History" are an obvious example, but EMBO's voice continued to be strongly heard at Conference meetings through its own delegation and through national delegations which normally included at least one EMBO member.

The term "Swiss Initiative" is that used in official references and in correspondence for the early moves towards international recognition for EMBO, and rightly so. The Swiss Government had given active help from the beginning (G.1), especially as a biological research institute similar to CERN and possibly sited near it was actively considered. Early encouragement and help came from J. Burckhardt and his successor E. Thalmann of the Swiss Foreign Office, and the first President of the Conference was H. Voirier of the International Organisations Division of the Political Department. CERN itself offered accommodation and administrative help with meetings, including in due course the signing ceremony. The negotiations, even so, were not smooth. The timing of the first approaches to governments had to be delayed during negotiations with the Volkswagen Foundation over the terms of its grant to EMBO (G.3). Membership of the Conference also caused problems. The "Swiss Initiative" was limited to members of CERN, thus excluding Israel despite her active participation in and financial support for EMBO; M.F. Perutz, Chairman of EMBO, was particularly reluctant to accept this as other than a temporary political expedient (G.4, G.11, G.21, G.22) and Israel was elected to membership at the first official Conference (G.36). The Belgian Government declined to participate but eventually agreed to do so via its Fonds National de la Recherche Scientifique (G.5, G.28, G.31). A further unexpected delay came from Germany and its demand that German be recognised as an official Conference language; the consequent protracted negotiations endangered the whole project before an amicable solution was reached (G.25). Objections of a different order affected the scope of the meetings. Support for the laboratory proposal was lacking and the discussion at the first meeting was to concentrate on the "Foundation" i.e. financial support for the fellowships and courses (G.8, G.9). In the event, however, EMBO was asked to continue and report on

its study for a European laboratory (G.17). Political lobbying was a regular feature not only by EMBO members in general (G.7) but especially in Britain where the attitudes to the laboratory and to the need for a new intergovernmental organisation were hostile (G.15, G.22-G.24). Nevertheless two meetings were held and the Conference Agreement was signed on 13 February 1969 (G.29, G.30).

The later papers in this Section deal mainly with the continuing negotiations over the laboratory project - complicated not only by international legal requirements and terminology for the Agreement document but by the problems of fluctuating exchange rates and the inflation of the early 1970s - and the self-appraisal required to ensure continuation of the Conference beyond 1974 and then on to 1988. Committee papers 1967-81 have been retained.

The presentation rests essentially on Kendrew's own files with some amalgamation, discarding of duplicates and division of bulky folders into more manageable units. The material is often complemented by the papers of the EMBO Council and Laboratory Committee in Section F.

EARLY HISTORY

"SWISS INITIATIVE"

1964-67

G.1 July - December 1964

Includes carbon of E. Kellenberger's letter of 4 July to Perutz (original at F.83) outlining his "activities" with Swiss authorities and the likelihood of "active help by Switzerland"; also offer of site for laboratory (Centre européen de biologie moléculaire) in Canton de Vaud; continuing correspondence and papers aiming at intergovernmental meeting.

G.2 February - June 1965

Correspondence, notes of meetings and telephone conversations, appointment by EMBO Council of committee to act in matters of negotiation with governments (Engström, Kellenberger, Kendrew, Wyman), preparation of "policy document" etc. Copy of letter from J. Wyman 6 February mentions Kendrew as "first choice for eventual Director" (of any agreed laboratory or institute).

G.3 July - December 1965

Delays over publication of policy document (and hence of Swiss initiative) during negotiations with Volkswagen Foundation, J. Wyman's "Memorandum of conversations at the Swiss Ministry of Foreign Affairs 22 November", decision to embark on organisation of intergovernmental meeting (limited initially to members of CERN and therefore excluding Israel at that stage. See G.4).

G.4 Correspondence January - April 1966 mainly with E. Katchalski re non-participation of Israel in proposed conference. Perutz in particular was reluctant to accept this. See also G.11.

G.5 Correspondence November 1965 - June 1966 with J. Brachet on EMBO affairs and Belgian participation.

G.6 January - March 1966

Correspondence, Wyman's "Notes on discussions at Swiss Foreign Ministry January 17", letter 31 March announcing Swiss "sondage" of CERN members on proposed conference.

G.7 March - July 1966

Correspondence from EMBO Council members and others in reply to circular of 30 March requesting active support for meeting among national representatives.

G.8 May - September 1966

Correspondence and papers on replies to Swiss initiative, use of EMBO not UNESCO proposals as basis of discussion, analysis of governmental attitudes, request to postpone laboratory proposal "because it lacks the support necessary to form a basis of discussion".

G.9 September - October 1966

Mainly replies from EMBO Council members to Perutz's circular of 29 September on limitation of conference discussion to "Foundation" "leaving it to the discretion of the meeting to consider other possible further developments". All members approved.

G.10 October - December 1966

Correspondence and papers, including Swiss "Aide-mémoire" on proposed conference, Wyman's "Memorandum regarding EMBO developments during the summer", note on UNESCO discussion of Swiss initiative.

G.11 Replies by EMBO Council members to Perutz's circular of 24 January 1967 on membership of conference. The terms of the circular were:

"Council of EMBO, while appreciating the political difficulties facing the Swiss Government with regard to the inclusion of Israel at the forthcoming conference, nevertheless regards it as essential that Israel be asked to participate fully in any scientific activities which may be decided upon."

G.12 January 1967

Wyman's "Notes on discussions at the Swiss Foreign Office in Berne, held on January 13, 1967, and on the [EMBO] Council meeting held in Geneva (CERN) on January 14, 1967", notes and correspondence on national representatives at conference, nomination of Kendrew as Secretary-General for conference.

- G.13 February 1967
Arrangements for conference.

INTERGOVERNMENTAL MEETINGS AND NEGOTIATIONS

1967-70

- G.14-G.20 First intergovernmental meeting, at CERN, 4-6 April 1967
- G.14 Documents circulated by Swiss Government, including their delegation paper "Récapitulation des efforts de collaboration internationale entrepris en matière de biologie moléculaire ... "
- G.15 March 1967
Perutz's correspondence with colleagues and officials in Britain, sending EMBO report and trying to enlist U.K. support at conference.
- G.16 March 1967
Arrangements for meetings preceding conference, correspondence.
- G.17 April 1967
Includes Wyman's "Notes on EMBO Conference", correspondence with members of EMBO and officials on successful outcome, press releases and conference "Communication". This summarises Conference decisions to hold a second meeting (to be convened by Swiss Government), set up Working Group to prepare a draft "Arrangement" (later "Agreement") and invite EMBO to submit a financial plan and a laboratory proposal.
- G.18 May - July 1967
Correspondence and papers, including arrangements and drafts for Working Group meeting 6-8 June
- G.19 August - September 1967
Mainly on proposals for Conference Secretariat, and "Arrangement"; includes Appleyard's notes on discussions and on second meeting of Working Group 12-14 September.

- G.20 Various drafts of "Arrangement" some with corrections by Appleyard and Perutz, copy of Final Report of Working Group.
- G.21-G.28 Second Intergovernmental meeting, at CERN, 22-25 January 1968
- It was hoped that the Agreement could be signed at the Conference, but various problems arose over funding arrangements, the length of time to be covered by any agreement, and the German demand for the recognition of German as an official language of the Conference. As a result the signing ceremony did not take place until February 1969 and considerable activity was required to ensure interim financing between the ending of the Volkswagen Foundation grant and the start of government contributions.
- G.21 September - December 1967
- Correspondence on arrangements for Conference, Israel attendance.
- G.22 Correspondence, discussion notes etc. on likely reactions to funding, Israel membership, Conference Secretariat, draft "Arrangement" etc. by France, Germany, U.K.
- G.23 January - March 1968
- Correspondence, notes and papers. Includes Wyman's "Comments on EMBO Conference", full text of "Intervention by the British Delegation", Perutz's manuscript notes for speech opposing U.K. alternative proposals, Conference papers relating to U.K. comments and proposals, other miscellaneous correspondence.
- G.24 February 1968
- Correspondence on attempts to mobilise political interest in EMBO projects, especially in U.K.
- G.25 Correspondence, notes and circulars February - October 1968 on the German demand for the recognition of German as an official Conference language. This problem led to the postponement of the signature of the Agreement (scheduled for May 1968) and endangered the whole EMBO project. After correspondence and negotiation the solution was accepted that, as at CERN, simultaneous translation should be provided at meetings, and Conference records should be circulated in English, French and German.

GENERAL CORRESPONDENCE AND PAPERS

1969-70

- G.36 Arrangements for first plenary session of Conference, at CERN, 6-8 April 1970. Includes draft agenda, correspondence, letters of thanks, press release. At this meeting H. Voirier was elected President, A. Alline and C. Zelle were elected Vice-Presidents, and Kendrew was appointed Secretary-General of the Conference for three years. The revised laboratory proposal (see F.195, F.196) was favourably received and a Study Group was set up to meet in September (G.37) and report to Conference at its November meeting. Full membership of EMBC for Israel was unanimously approved, a special clause being included in the Agreement (Art.III.2) that "the Conference may . . . permit other European States, as well as States which have made an important contribution to the work of EMBO from its foundation, to become Members by acceding to this Agreement after it has come into force". In his letter of 10 April to E. Vallotton Kendrew describes the meeting as "absolutely, in all respects, an enormous success and in addition it was one of the most friendly international meetings I have ever attended."
- G.37 Correspondence, circulars, nominations and lists of participants, arrangements for meetings at the Hague 29 September - 30 October. Meetings include those of EMBO Council and Laboratory Committee, of EMBC Study Group on laboratory and *ad hoc* Finance Committee, and meeting of EMBO with representatives of national scientific institutions.
- G.38 Correspondence and papers mainly on financial matters, contributions, *ad hoc* Finance Committee etc. April 1970 - February 1971.

1971

- G.39 General correspondence on EMBC affairs, meetings of Finance Committee and Conference, discussion of laboratory, draft agreement etc. Kendrew was appointed laboratory Project Leader at the Conference meeting in October 1971.
- G.40 Correspondence March - December on extension of H. Voirier's service as President of Conference.

1972

- G.41 Correspondence April - August, on delay in payment of financial contribution from Italy.
- G.42 Choice of officers of EMBC.
- G.43 Kendrew's notes and memos for and of meetings of Finance Committee 27 June and 5 December and of extraordinary session of Conference 28 June.

1973

Much of this material relates to meetings of the Conference "Bureau", the signing of the laboratory agreement, Conference officials, and the Working Group on the continuation of the EMBC Agreement after 1974. This was the "Andres" Working Group, see G.107-G.114. Several of the folders include Kendrew's notes on matters under discussion.

- G.44 January - February. Papers, correspondence, Kendrew's notes, compte-rendu for Bureau meeting 20 February. Includes letter from A. Rörsch proposing working group on continuation and possible expansion of EMBC, which led to setting up of "Andres" Working Group. See G.107-G.111.
- G.45 June. Election of officers of Bureau and of Laboratory Council, correspondence of President (H. Voirier) with Conference representatives.
- G.46 February - July. Arrangements for Conference, Bureau, Laboratory Council meetings, retirement of H. Voirier as President (successor: P. Fasella). Includes farewell exchange of letters between Voirier and Kendrew.
- G.47 July - September. Correspondence on Conference and Bureau proceedings, Andres Working Group meeting, Greek offer for meeting to be held in Greece.
- G.48 September. Arrangements, correspondence, Kendrew's manuscript notes, minutes for Bureau meeting 25 September.

- G.49 October - November. Correspondence, agenda for Bureau meeting 5 December.
- G.50 November - December. Correspondence on Conference meeting, Kendrew's manuscript notes and official papers on Finance Committee meeting 5 December at which financial problems of the laboratory, assessment of contributions and exchange rates and losses were discussed.

1974

- G.51 Correspondence, papers, Kendrew's manuscript notes December 1973 - March 1974 on informal EMBC meeting, mainly on financial matters and exchange fluctuations, held at Heidelberg 30 April.
- G.52 July - July. Correspondence, papers, Kendrew's manuscript notes, for Bureau meeting 3 July and Conference 4 July, mainly on nomination of officers of EMBL Council and relationship with EMBC.

- G.53 July - December

1975

- G.54 Includes letter from A. Rörsch on Kendrew's resignation as Secretary-General of EMBO and EMBC.

1978-79

- G.55 Mainly on continuation of EMBC support to 1988, including copy of document on case for continuation.

SUBCOMMITTEES AND WORKING GROUPS

At its meeting in November 1970 the Conference set up four Working Groups to study the laboratory proposals, their membership consisting of national delegates and two EMBO consultants for each group. Their task was to study respectively the role, the organisation, structure and administration, the site, and the financial aspects of the laboratory. There was in addition a Steering Group of the Working Groups to co-ordinate their work and to prepare a report. Kendrew's list of the national and EMBO members of all the groups is included at G.92.

Laboratory Working Group I. Role of the laboratory

Chairman: J.F. Embling

- G.65 Correspondence, draft papers and memoranda, Report of group (January 1971).

Laboratory Working Group II. Organisation, structure and administration

Chairman: C. Zelle

The work of this Group proved particularly arduous and many drafts of the "Agreement" were required. The material should be consulted in conjunction with that of the "Legal Sub-group" (G.103-G.106).

For drafts of the "Headquarters Agreement" establishing the laboratory in Germany see H.7, H.8.

- G.66 December 1970 - January 1971. Correspondence, memoranda, agenda and minutes of first meeting 28 January, comments by E.C. Appleyard.
- G.67 March 1971. Drafts, memoranda, comments, summary record of second meeting 15 March, draft agreement of 19 February (both with manuscript revisions by Kendrew).
- G.68 April - May. Third meeting 11 May, draft agreement of 20 April.

- G.69 May - June. Fourth meeting 8 July. Includes revised draft of 25 May with manuscript revisions by Kendrew, summary record of 11 May meeting, draft summary report of working group, correspondence.
- G.70 July - August. Correspondence, memoranda for fifth meeting 3-4 August. Includes summary record of 8 July meeting, revised draft of 9 July with manuscript revisions by Kendrew, summary report of working group, miscellaneous manuscript notes.
- G.71 Comments by EMBC members on revised draft agreement of 4 August (included in folder) as requested following extraordinary session of Conference on 13-14 October.
- G.72 Later revised drafts 22 November, 3 December.
- G.73 Summary records of meetings of enlarged working group 2 and 5 May 1972.

Laboratory Working Group III. Site of the laboratory

Chairman: A. Rörsch

The working group began by establishing criteria for the choice of site (G.74) and, at its first meeting in January 1971 (G.75) considered the report of the EMBO Sites Subcommittee of the Laboratory Committee. It also visited the two sites near Munich already visited by the EMBO Subcommittee and, after some uncertainties about the availability of the Heidelberg site and attempts to revive the connection with CERN, a major visit was made to Heidelberg in July (G.81-G.86) after which the Group's report recommended acceptance of the site. The report was accepted by the Conference in October.

See F.198-F.204 for material relating to the work and recommendations of the EMBO Sites Subcommittee.

- G.74 August 1970 - January 1971. Correspondence, memoranda and working group's report on criteria for site.
- G.75 January 1971. Papers for first meeting 3-4 January, including EMBO sites report, memo on report by O. Maaløe (EMBO Subcommittee chairman), comments by A. Rörsch (EMBC working group chairman), Interim Report of working group.

- G.76 February - April. Papers for second meeting and visits to two sites near Munich (Garching and Martinsried), programme of visits and meetings, list of participants, second Interim Report of working group, correspondence.
- G.77 Official offers by Federal Republic of Germany of sites for laboratory at Munich-Garching and Munich-Martinsried, details of sites, maps etc.
- G.78 February - April. Correspondence and papers on visit to Heidelberg 1 April. This was by a "Second Working Party" arranged by EMBO Council and its interim report (by N.K. Jerne) confirmed the previous report in recommending Heidelberg as preferred site. It was hoped that this would "give the German Federal authorities the opportunity to make an additional site offer apart from the ones in the Munchen area", as proved to be the case. H. Voirier, A. Rörsch and O. Brieskorn attended as observers for EMBC. Folder includes Kendrew's notes, correspondence, copy of Jerne's Interim Report.
- G.79 Personal report by A. Rörsch on the Munich and Heidelberg sites, 15 April.
- G.80 April - May. Correspondence on meeting at CERN on possible site for laboratory adjacent to CERN (not successful); also included is Kendrew's letter to C. Zelle on possibility of official offer by Germany of Heidelberg site.
- G.81 April - June. Correspondence on EMBC working group's visit to Heidelberg 12-14 July. Includes information on official offer of site, list of participants.
- G.82 July. Correspondence with H.E. Huxley on his objections to the Heidelberg site (sent too late to be considered at meeting).
- G.83 Summary record of working group meeting at Heidelberg, report on sites.
- G.84-G.86 Three folders of material on Heidelberg, proposed site, facilities, official offer etc.

- G.87 Late suggestions for sites October - November 1971.

Laboratory Working Group IV. Financial aspects

Chairman: A. Alline

- G.88 Summary record of first meeting 25 February 1971, correspondence on U.K. contribution, memoranda, summary record of second meeting 4 May, Interim report of working group after third meeting 22 June.
- G.89 January - March 1972. Correspondence and papers on membership and meeting of enlarged working group 15-16 February. Includes Kendrew's manuscript notes, statement of U.K. position, minutes of meeting.
- G.90 October 1972. Drafts for working group on financial rules and on "literary, scientific and industrial property".
- G.91 1973. Drafts and revisions suggested by national delegations, prepared for meetings 27-28 March. Includes substantial revisions by Kendrew in French and English versions.

Steering Group of Laboratory Working Groups

The Chairman of this co-ordinating committee was H. Voirier and the Secretary was Kendrew. The members were the chairmen of the four working groups: J.F. Embling, C. Zelle, A. Rörsch and A. Alline.

- G.92 Kendrew's lists of membership, EMBO consultants and duties of working groups and steering group.
- G.93 November 1970 - January 1971. Notes of first informal meeting of Steering Group 27 November, timetabling of meetings, nomination of national representatives.
- G.94 Agenda and minutes of first meeting 21 April, correspondence on site for laboratory, interim progress report.

- G.95 July - August. Correspondence, papers, reports and minutes for meeting 4 August.
- G.96 December 1971 - March 1972. Correspondence, notes, reports and minutes for meetings 15-16 February and 24 March 1972. Includes Kendrew's manuscript notes, and memoranda on scientific programme and financial problems of laboratory by Kendrew and A. Rörsch.
- G.97 Papers, Kendrew's notes for meeting 21 April.
- G.98 Papers, Kendrew's notes, minutes for meetings 21 April, 24 May, 27 and 29 June.
- G.99 August - September. Correspondence, papers, minutes for meeting 5 September.
- G.100 October. Correspondence and memoranda for meeting 7 November during Haarlass "Second Konstanz" meeting.
- G.101 Papers for meeting 7 November.
- G.102 Kendrew's manuscript notes, minutes of meeting 7 November, report of Steering Group's activities.

Enlarged legal sub-group

This was set up by the Conference at its extraordinary session 13-14 October 1971, to examine amendments to the laboratory "Agreement" and to prepare an agreed text for signature.

The material includes arrangements for meetings, notes of meetings, memoranda, texts and revisions of "Agreement", correspondence.

- G.103 1971. Meeting 18-19 November.
- G.104 1972. Meetings 13-14 January, 24-25 February.

G.105 1972. Meetings 21-22 April, 16 May, 9 June, 22-24 July, 25-26 September.

G.106 1973. Meetings 27-28 March, 2-3 July.

"Andres" Working Group on future of Conference

The Working Group was set up following an initiative on behalf of the Dutch delegation by A. Rörsch. An *ad hoc* working group met informally in May 1973 after the signing ceremony of the laboratory Agreement. The terms of reference of the working group were to consider the future of the Conference Agreement and whether it should be continued without change, amended or discontinued. Much of the discussion bore on the "scientific philosophy" of EMBC and how far its scope might be expanded to include other research areas such as Brain and Behaviour (EBBO), Cell Biology (ECBO) and Cancer Research (EORTC). Material relating to these projects, which were not accepted for affiliation with EMBC, is included at G.112-G.114.

The Chairman was E. Andres, and the working group is regularly referred to as the "Andres Working Group". See also G.44, G.47.

G.107 Preliminary material January - May 1973. Includes copy of A. Rörsch's letter (original at G.44), negotiations, arrangements for informal meeting in May, terms of reference, Kendrew's manuscript notes of meeting.

G.108 May - June 1973. Correspondence on draft terms of reference, report of working group on Brain and Behaviour (for consideration by Andres group at first meeting 2 July).

G.109 July - October 1973. Correspondence and papers for second meeting 26-28 September. Includes Kendrew's manuscript notes, papers by A. Rörsch "On the philosophy of the enlargement of the scope of EMBC" and B.H. Flowers on "Science and Europe".

G.110 Agenda and Kendrew's notes for third meeting 24-26 October.

G.111 Minutes of Group meetings, reports to Conference, drafts and final text of Conference resolution to prolong Agreement for a further five years (to 1977).

- G.112 European Training Program in Brain and Behaviour Research. Correspondence and papers. October 1971 - December 1973 on proposal to affiliate with EMBC.
- G.113 European Cell Biology Organisation (ECBO). Correspondence and papers February 1973 - January 1975 on proposal to affiliate with EMBC, including formal application, and on relations with EMBO.
- G.114 European Organization for Research on Treatment of Cancer (EORTC). Correspondence and papers March 1972 - December 1973 on request for financial support from EMBC.

CONFERENCE AND COMMITTEE PAPERS

The English text has been retained except in a very few cases where only the French or German versions survive.

Some of the documents have notes or revisions by Kendrew.

- G.115 First intergovernmental meeting 4-6 April 1967.
- G.116 Conference working group 6-8 June 1967.
- G.117 Conference working group 12-13 September 1967.
- G.118 Second intergovernmental meeting 22-25 January 1968.
- G.119 Ceremony of signing Agreement 13 February 1968.
- G.120 Interim Conference 2-3 June 1969.
- G.121 First Plenary Conference 6-8 April 1970.
- G.122 Ordinary Session 26-27 November 1970.
- G.123 *Ad hoc* Finance Committee 1970.
- G.124 Extraordinary Session 13-14 October 1971.
- G.125 Ordinary Session 2-3 December 1971.
- G.126 Finance Committee 1971.

- G.127 Extraordinary Session 28-29 June 1972.
- G.128 Ordinary Session 6-7 December 1972.
- G.129 Finance Committee 1972.
- G.130 Ceremony of signature of Agreement establishing Laboratory
10-11 May 1973.
- G.131 Ordinary Session and Finance Committee 4-5 July 1973.
- G.132 Ordinary Session and Finance Committee 5-7 December 1973.
- G.133 Ordinary Session 3-5 July 1974.
- G.134 Finance Committee 3 July 1974.
- G.135 Ordinary Session and Finance Committee 11-12 December 1974.
- G.136 Ordinary Session and Finance Committee 2-3 July 1975.
- G.137 Ordinary Session and Finance Committee 25-26 November 1975.
- G.138 Ordinary Session and Finance Committee 28-29 June 1976.
- G.139 Ordinary Session and Finance Committee 22-23 November 1976.
- G.140 Ordinary Session and Finance Committee 4-5 July 1977.
- G.141 Ordinary Session and Finance Committee 5-6 December 1977.

- G.142 Ordinary Session and Finance Committee 8-9 May 1978.
- G.143 Plenary Working Party to consider prolongation of Agreement 10-11 October 1978.
- G.144 Ordinary Session and Finance Committee 10-12 December 1978.
- G.145 Ordinary Session and Finance Committee 28-29 May 1979.
- G.146 Ordinary Session and Finance Committee 19 November 1979.
- G.147 Ordinary Session and Finance Committee 10 June 1980.
- G.148 Ordinary Session and Finance Committee 25 November 1980.
- G.149 Ordinary Session and Finance Committee 2 June 1981.
- G.150 Ordinary Session and Finance Committee 8 December 1981.

SECTION H EUROPEAN MOLECULAR BIOLOGY LABORATORY (EMBL)

H.1-H.417

INTRODUCTION

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FINANCE COMMITTEE AND COUNCIL MINUTES

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INTRODUCTION

The year 1971 can reasonably be taken to mark the official start of EMBL since it saw the appointment of Kendrew as Project Leader and the setting up of a Building Committee and of a Provisional Scientific Advisory Committee. Many of the early planning documents in this section nevertheless go back to 1967, as does some of the political and policy material. There is also, obviously, an inevitable overlap with material involving EMBO (Section F) and EMBC (Section G); examples of such are the original proposals for the Laboratory, the working group on choice of site (predecessor of the Building Committee), the Konstanz meeting on the research programme and the subsequent working parties. Many of the EMBL working groups and committees were a continuation of those first set up by EMBO. Kendrew himself took up residence in Heidelberg only from January 1975. That said, it remains the case that the papers in this Section can be seen to be geared to the Laboratory.

As with the material on EMBO and EMBC, one of the chief sources of interest is the evidence of long-term planning and thought afforded by the early date of many of the documents and letters on all aspects of the Laboratory history; one could mention the setting up of the Scientific Advisory and specialist Committees, the negotiations regarding the establishment of the outstations at Hamburg and Grenoble, the administrative structure, plans and costings of the building.

The very considerable elaboration of the latter are attributable not only to Kendrew's determination to achieve the highest standards of equipment and function but to the historical coincidence of the building of the Laboratory with a period of high and often unpredictable global inflation due primarily to the rise in oil prices. This was an unexpected factor which required several budget revisions and cost-cutting exercises, and which continued as a permanent problem with the varying inflation rates of EMBC member states affecting their relative contributions and also the comparative salary rates for EMBL staff. It was a considerable achievement to have had the building finished to schedule and to budget and incorporating the additional Containment Facility for genetic research.

The concept of the Laboratory had always been crucial to Kendrew. He espoused it from the first informal discussions in 1962 in which Szilard seems to have played an initiatory part, and fostered it with skill through the many vicissitudes of the ensuing decade. His own extensive notes, charts, schedules, discussion memoranda and the like (*passim* but especially at H.345-H.358) are of special interest in this respect, usually antedating the official documents by a matter of years and showing great foresight in anticipating areas where scientific or political developments were to be encouraged, forestalled or answered. Almost all aspects of the history of the Laboratory may be complemented by reference to these notes.

Kendrew's role as Project Leader and Director-General was an active one. He followed the construction of the Laboratory very closely, supervising its physical growth and refurbishment, its inauguration and harmonious relationship with the local community, in surprising detail (H.47-H.49, H.51). Even before this stage, when small research groups were operating in temporary accommodation, Kendrew was very directly involved in planning the administrative structure, and his hand can literally be seen in early drafts for its funding, in documents at all levels from the various scientific and administrative committees as and when they were set up to the constitution of the staff association, in travel claim and leave forms, and in the handsome stationery (H.305, H.308, H.325, H.332). The carbon copies of the Director-General's correspondence at H.370-H.377 are also of interest as a running tally (probably by no means complete) of the routine workload.

AGREEMENTS

LABORATORY AGREEMENT

This was the agreement establishing the European Molecular Biology Laboratory, signed on 10 May 1973 by ten countries (Austria, Denmark, France, Federal Republic of Germany, Israel, Italy, Netherlands, Sweden, Switzerland, United Kingdom).

The material deals with last-minute negotiations, mainly involving delays in Italy's decision to contribute, and with the signing ceremony itself. For earlier work on the agreement, see G.66-G.72.

- H.1 April 1972 - January 1973. Agreements to participate, delays and last-minute snags. The signing ceremony was proposed for 19 February 1973 but postponed because of Italian uncertainty.
- H.2 October 1972 - March 1973. Correspondence, calculations etc. on Italian contribution and participation.
- H.3 Drafts and final text of letter to Foreign Ministries informing them of Italian decision to participate. Sent 19 March 1973.
- H.4 Signing ceremony at CERN, 10 May. Arrangements, speeches, press release.
- H.5 Arrangements for meeting of Working Group on future of EMBC on 10-11 May after ceremony. See G.107-G.111.
- H.6 Design and text of agreement.

HEADQUARTERS AGREEMENT

This was signed between the Federal Republic of Germany and EMBL on 10 December 1974 at Bonn, Kendrew signing on behalf of the Laboratory.

H.7 Drafts and revisions of agreement, February, November 1971, January, May 1972, July 1973.

H.8 Correspondence and last-minute alterations to agreement, arrangements for signing ceremony, Kendrew's speech (German and English versions), text of agreement, a little later correspondence on implementation of agreement.

THE BUILDING OF THE LABORATORY

TEMPORARY ACCOMMODATION IN HEIDELBERG

Deutsches Krebsforschungszentrum (DKFZ)

- H.9 Correspondence, estimates, discussion notes etc. September 1971 - July 1978, for laboratory space in newly-built Cancer Research Centre, and a little later correspondence on DKFZ affairs. See also 0.19.

Max-Planck-Institut für Kernphysik (MPIK)

- H.10 Correspondence, plans, discussion notes etc. March 1972 - May 1976.

Biochimie

- H.11 Correspondence, plans, discussion notes March 1974 - September 1975 for accommodation in old university biochemistry building.

Miscellaneous

- H.12 Shorter correspondence 1973 on possible collaboration, outstations etc.

EARLY PLANNING AND COSTING

- H.13 1967-71. Correspondence and memos. Includes material about possible sites and projects for laboratory, Royal Society discussion meetings, Konstanz meeting, revised laboratory proposals, possible recruits for EMBL, attitudes to EMBL in Netherlands, Germany, UK.

- H.14 Notes, calculations, correspondence and memos. on laboratory costings, comparison with other laboratory staff levels and salaries etc. 1969-70.
- H.15 March-April 1971. Correspondence and notes on costings, including calculations by H.E. Huxley and other MRC Cambridge colleagues, used as basis by Kendrew in preparing reply to EMBC Working Group on Finance.
- H.16 October-November 1971. Similar material with extensive notes and calculations by Kendrew, mainly prepared for EMBL Scientific Advisory Committee meeting.
- H.17 February-March 1972. Extensive notes, calculations, discussions with colleagues S. Brenner, A. Klug, U.W. Arndt for preparation of revised budget (also used for Building Committee see H.23).
- H.18 May-November 1972. Revised budget (May) and later calculations.
- H.19 1973. Correspondence and papers on cost variation, inflation factor etc. as affecting EMBL.
- H.20 1973. Requests sent to member countries for subscriptions to EMBL.

BUILDING COMMITTEE

This was set up by EMBC in December 1971 under the Chairmanship of A. Rörsch. It drafted a programme of requirements and a time schedule which were sent to four selected architects in October 1972. Proposals were submitted in October 1973 and a jury and technical committee were formed to judge the four projects. In November 1973 the partnership of Lange, Mitzlaff, Böhm and Müller, of Mannheim, were awarded the first prize.

- H.21 Preliminary correspondence, membership invitations, correspondence and meetings January, March 1972, notes on laboratories visited.

- H.22 April 1972. Organisation procedures for international competitions.
- H.23 Information from colleagues about laboratory design, meeting at Göttingen July 1972.
- H.24 Drafts and revisions of information document to be circulated to architects (drafted by Rörsch, revised by Kendrew).
- H.25 Maps of site.
- H.26 August-September 1972. Correspondence, meeting at Frankfurt, report on visit to colleague's laboratory, draft letter to architects.
- H.27 Miscellaneous correspondence on suggestions for architects or advisers to committee; late or unsuccessful applications to submit plans or be included in competition 1972-73.
- H.28 October 1972 - January 1973. Invitations to architects, acceptances, proposed meeting of committee and architects postponed from 9 November to 9 December and eventually to 12 May 1973 because of delays in signing Laboratory Agreement.
- H.29 Meeting at Heidelberg 12 May 1973 of committee and architects. Kendrew's notes and revisions of minutes.
- H.30 May-June 1973. Correspondence and arrangements for meeting at Heidelberg 15 June of committee and local representatives. Further information on site requirements for architects.
- H.31 May-July 1973. Meeting with architects, Heidelberg 6 July, last meeting of Building Committee, questions from architects and replies.
- H.32 Vorprüfungs committee. Met 23 October, 14 November.

H.33 Meeting of Jury 16-17 November 1973, correspondence with jury members and with competing architects, jury's report.

H.34 Photographs of models of buildings submitted to jury.

ARCHITECTS, TENDERS, PLANS

H.35 Meetings, discussions, correspondence 1973-74 with architects, city authorities, colleagues leading up to contract.

H.36 Papers and correspondence 1973-75 on heating system. The original plans envisaged heating by pipeline from a plant operated by Stadtwerke Heidelberg. The Laboratory eventually had an independent gas heating system. The ensuing delays and alterations led to a rise in costs.

H.37 Correspondence, notes, plans, calculations relating to animal house 1973-81. Mainly on early designs and requirements, but includes some later material on organisation and running of animal house.

H.38 Correspondence and papers on Laboratory Planning Group set up by Kendrew to discuss technical problems likely to arise during planning. Notes of meeting 5 July 1974.

H.39 Correspondence, notes, plans, calculations etc. on planning, 1974, mainly on costings and attempts to reduce them in response to concern expressed by Finance Committee. Includes documents by architects, colleagues, Kendrew's notes etc.

H.40 Miscellaneous plans with modifications and revisions for layout and space allocation, mainly 1974, 1975, related to H.39.

H.41 Award of tender for civil engineering works of EMBL building; correspondence, official proposal as put to and accepted by members of Finance Committee 1975.

- H.42 Later Finance Committee papers on tenders and costs, including final "Report on Construction . . . and Expenditure 1980".
- H.43 Expert working group, appointed to supervise and comment on progress of construction; correspondence 1975-79, mainly with C. Groscurin about P4 installation. Includes final report of working group.
- H.44 Arrangements for move to new building, minor snags and problems etc. 1977-79.
- H.45 Architect's first plans December 1974.
- H.46 Revised plans January 1975, March 1975.

FURNISHING AND INTERIOR DESIGN

This material is of interest in demonstrating Kendrew's meticulous care for what others might consider matters of minor importance but which he rightly saw as creating a harmonious ambience and a powerful contribution to the laboratory's smooth working. His chief consultants were the Design Research Unit then headed by Sir Mischa Black, working in conjunction with the architects and a small committee from the laboratory, but it is very clear that he took an active personal part in decisions. His memorandum of 12 April 1976 which begins "As you know, I attach great importance to problems of aesthetics and design in the laboratory", indicates the range of his preoccupations in this regard: they include internal and external lighting, floor coverings, sanitary fittings, wall and door colours, furniture and fittings for canteen, library and seminar rooms, direction signs and lettering, stationery, landscaping, soft furnishings, china and cutlery, reading lamps, notice boards and ash-trays.

- H.47 Correspondence, memoranda, notes of meetings, visits and costs etc. mainly 1976-78 but a little later material to 1980, with Design Research Unit and others.

- H.48 Notes, designs, correspondence 1975-80 on all aspects of stationery and graphic design, including letter head, application forms, covers for annual and research reports, manuals and brochures. Also includes correspondence with Gertrud Szilard and others on bookplate for the Leo Szilard Library approved by EMBL Council in December 1978 as official name of library in commemoration of Szilard's support in early days of EMBO. Kendrew's speech at the opening of the laboratory (H.54) had referred to Szilard's creative role and his own wish to perpetuate it. Here also Kendrew was personally active in designing or approving items.
- H.49 Miscellaneous catalogues of supplies and equipment referred to in correspondence.

INAUGURATION

The formal opening of the new building was originally planned for 8 May 1978, then brought forward to 5 May in order that the President of West Germany, Dr Scheel, could perform the official ceremony. In the event the State Visit of President Brezhnev prevented his attending and the Laboratory was opened by the Minister for Research and Technology. Guests included delegates and government representatives of EMBL and EMBC member states, representatives of the West German Bund and Land, of the City and University of Heidelberg and of the Max-Planck Institutes, as well as present and former members of the Council and Scientific Advisory Committee of EMBL, and some early members of EMBO.

The inauguration programme of events included official speeches and lunch, scientific colloquia, tours of the Laboratory and its research groups, and an evening reception.

- H.50 Preliminary arrangements, meetings of the inauguration committee, guest lists and revisions.
- H.51 Arrangements for special commemorative postmark, artwork for stationery and printed items, press coverage and releases.
- H.52 Correspondence on official invitations, acceptances and refusals, Kendrew's official letters of thanks.

- H.53 Correspondence with colleagues on arrangements for talks at scientific seminar to be given as part of opening ceremony.
- H.54 Correspondence with colleagues about opening ceremony, including invitations to speak, letters and cables of good wishes, regrets at inability to attend etc., some with recollections. Includes draft speeches by Kendrew and E.C. Slater, message from West German President.
- H.55 Folder of material designed by Design Research Unit for guests at ceremony.

RESEARCH COMMITTEES AND WORKING GROUPS

These constitute the main arteries for the scientific activities of the Laboratory, and in chronological terms antedate it. In preparation for the Extraordinary Meeting of EMBC scheduled for October 1971, Kendrew was authorised by the President, H. Voirier, to consult members of the EMBO Council and representatives of national institutions of EMBC members about suitable nominations for a "shadow" (later called provisional) Scientific Advisory Committee (H.56). This first met in October 1971 under the chairmanship of N.K. Jerne, and continued to meet and to advise the EMBC delegates and the EMBL Project Leader (Kendrew) until the coming into force of the Agreement and the formal inception of the SAC in 1974.

The SAC and its specialist Working Groups on Computer Policy, Nuclear Magnetic Resonance and Recombinant DNA had periodical meetings but also maintained regular contact by correspondence and telephone. Its activity included scientific policy, choice of field of research, appointments to the Laboratory and to the SAC, visits to the laboratories and outstations, consideration of reports by staff members or working groups, and any special projects. Great attention was paid to the selection and recruitment of staff members; much of the early correspondence is concerned with recommendations and suggestions for the first appointments, and this continued to be an important regular component of the agenda for SAC meetings.

Once the scientific life of the Laboratory began in 1975 the purchase of equipment led to the creation of the Scientific Purchases Committee, whose documentation (H.103-H.140) is of interest in including the "justifications" for items of equipment requested by members of the scientific staff and submitted for evaluation.

An important source of information for the SAC and the Director-General on current and developing fields of research were small workshops or discussion meetings attended, by invitation, by leading workers in specific topics (H.141-H.151).

Various specialist *ad hoc* committees were set up from time to time to advise on matters of concern to the research groups of the Laboratory. They are listed under the appropriate Research Division or Outstation.

PROVISIONAL SCIENTIFIC ADVISORY COMMITTEE (PSAC)

Membership

- H.56 Founding documents August-October 1971. Includes letter of authorisation from H. Voirier, Kendrew's letters to EMBO and EMBC members and their recommendations, statistical lists of nominations, first membership.
- H.57 October 1971 - September 1973. Invitations to serve on PSAC, acceptances, some reference to meetings on 31 October, 4 December 1971, suggestions for membership.
- H.58 Correspondence October 1973 - March 1974 with PSAC members on European laboratories significantly involved in molecular biology.
- H.59 Correspondence March and July 1974 with PSAC members on changeover to formal Scientific Advisory Committee and changes in membership. Thirteen of the original fifteen members continued to serve on the SAC.

Meetings

This material varies in extent and may include agenda and minutes, Kendrew's notes made at the meeting or in preparation for it, correspondence with committee members or others, suggestions or recommendations for appointments, matters arising from meeting.

- H.60 1st informal meeting 31 October 1971.
- H.61 2nd meeting 4 December 1971.
- H.62 3rd meeting 19-20 April 1972 jointly with EMBO Council.

- H.63 4th meeting 3, 7, 8 November 1972, during Haarlass ("Second Konstanz") meeting.
- H.64 5th meeting 14 June 1973.
- H.65 Informal meeting 23 October 1973.
- H.66 6th meeting 11 February 1974.
- H.67 7th meeting 21 June 1974 (last meeting).
- H.68 Miscellaneous notes by Kendrew on possible appointments.

SCIENTIFIC ADVISORY COMMITTEE (SAC)

Membership

Official and personal correspondence on nominations and service, Kendrew's notes and lists of candidates and members.

- H.69 1975. Includes charts of committee members and attendance 1971-84.
- H.70 1976.
- H.71 1977.
- H.72 1978.
- H.73 1979.

H.74 1980.

H.75 1981.

H.76 1982.

Meetings

These files cover SAC meetings from the first on 14 December 1974 to preparations for the 19th to be held in May 1982 after Kendrew had left the Laboratory. They include agenda, minutes and notes on meetings, Kendrew's own notes made in preparation for or at meetings, background papers, reports and submissions for the committee, applications, recommendations and decisions on staff appointments, space allocations, budget and buildings, policy and projects, correspondence with members or others on all aspects of SAC work.

H.77 1st meeting, 14 December 1974.

H.78 2nd meeting, 3-4 May 1975.

H.79 3rd meeting, 1 July 1975.

H.80 4th meeting, 23-24 November 1975.

H.81 5th meeting, 2-3 May 1976.

H.82 6th meeting, 30-31 July 1976 at DESY outstation, Hamburg.

H.83 7th meeting, 28-29 October 1976.

H.84 8th meeting, 18-19 March 1977 at ILL outstation, Grenoble.

- H.85 9th meeting, 1-2 July 1977.
- H.86 10th meeting, 25-26 November 1977.
- H.87 11th meeting, 21-22 April 1978 at DESY outstation, Hamburg.
- H.88 12th meeting, 10-11 July 1978.
- H.89 13th meeting, 18-19 January 1979.
- H.90 14th meeting, 23-24 November 1979, at ILL outstation, Grenoble.
- H.91 15th meeting, 25-26 April 1980.
- H.92 16th meeting, 1-2 November 1980.
- H.93 17th meeting, 12-13 April 1981, at Grenoble.
- H.94 18th meeting, 3-4 October 1981, and brief correspondence concerning 19th meeting 3-4 May 1982.

Correspondence

Correspondence with individual scientists or consultants to SAC.

- H.95 G. Bernardi 1975-76.
- H.96 L.C.M. De Maeyer 1976-81.
- H.97 H. Harris 1975-76.

NUCLEAR MAGNETIC RESONANCE (NMR) WORKING GROUP

H.98 Correspondence, memoranda and papers mainly 1971-76 and a little later material 1981. Includes A. Klug's first report (February 1974) on "the desirability and feasibility of developing a high field NMR spectrometer at EMBL" and comments by others, later report of Working Group on future developments of NMR at EMBL (September 1975), staff appointments, other NMR research projects at EMBL and elsewhere.

No NMR spectrometer was acquired by EMBL at this time, in part because delays in starting the laboratory led to R. Freeman, whom it had been hoped to recruit, taking up an appointment elsewhere.

COMPUTER POLICY WORKING GROUP

H.99 Correspondence, memoranda and papers 1972-76 on computer policy especially in the area of computer graphics and other advanced computer applications. Includes Working Group meetings and reports, staff appointments etc. With the appointment of R.F. Herzog as Head of Computing in 1976, the formal work of the Working Group came to an end.

RECOMBINANT DNA (rDNA) COMMITTEE

Concern about potential biohazards in molecular biological research was widely voiced during the early 1970s. A circular letter was sent to Kendrew in June 1974 by C. Weissmann (a co-signatory) for consideration by EMBO Council and by the PSAC and recommending that "these problems be urgently and carefully considered by appropriate EMBO bodies, both in regard to security recommendations and to providing appropriate special risk laboratories within the framework of EMBO, for instance at the Heidelberg laboratory" (H.100). An Asilomar conference on rDNA was held in February 1975, attended by a five-man EMBO delegation and an *ad hoc* EMBO committee was set up by Council in January 1975 (Chairman: C. Weissmann). See also F.118. The report to EMBC on the Asilomar conference recommended that "a containment laboratory meeting the most stringent specifications . . . should be built within the European Molecular Biology Laboratory." For material on the building, equipment and use of the containment laboratory, see H.156-H.177.

H.100 Correspondence and papers June-December 1974.

- H.101 Correspondence and papers January 1975 - February 1976.
- H.102 Reports and minutes of the EMBO *ad hoc* and Standing Advisory Committees 1975-80.

SCIENTIFIC PURCHASES COMMITTEE

(from 19 March 1980 PURCHASES COMMITTEE)

This had its first meeting on 16 July 1976, its function being to co-ordinate purchase requests for equipment made by the various scientific groups. Its membership consisted of the Director-General (Chairman), Heads of Divisions, Heads of the Outstations, and the Heads of the Administration and Purchasing Sections.

The material includes minutes, detailed agendas, proposals and "justifications" for purchases of equipment and comments thereon, and some correspondence or discussion notes with members of the committee, scientific and administrative staff. Many of the documents have Kendrew's annotations and calculations.

It should be noted that early versions of proposals for equipment for the outstations at Hamburg and Grenoble, prior to their referral to the committee, may be found in the related outstation files.

- H.103 Meetings 16 July, 23 September, 21 October 1976.
Included here is draft "Procedure for ordering scientific equipment", with Kendrew's revisions.
- H.104 3 May 1977.
- H.105 4 August 1977.
- H.106 29 September 1977.
- H.107 24 November 1977.

- H.108 14 December 1977 (informal).
- H.109 27 April 1978.
- H.110 30 May 1978.
- H.111 2 August 1978.
- H.112 4 October 1978.
- H.113 16 October 1978.
- H.114 15 November 1978.
- H.115 7 December 1978.
- H.116 28 February 1979.
- H.117 17 May 1979.
- H.118 11 July 1979.
- H.119 12 September 1979.
- H.120 7 November 1979.
- H.121 13 December 1979.
- H.122 15 February 1980. Six sub-groups were set up at this meeting,
to advise on specialist items of equipment.

- H.123 19 March 1980. The Committee was henceforward called "Purchases Committee".
- H.124 19 May 1980.
- H.125 3 July 1980.
- H.126 17 July 1980. Special Purchases Committee meeting to deal with requests for equipment and construction work in the new HASYLAB (Hamburg Synchrotron Radiation Laboratory) at Hamburg outstation.
- H.127 18 September 1980.
- H.128 23 October 1980.
- H.129 27 November 1980.
- H.130 16 December 1980.
- H.131 20 February 1981.
- H.132 2 April 1981.
- H.133 6 May 1981.
- H.134 30 June 1981.
- H.135 10 July 1981. Extraordinary meeting.
- H.136 8 September 1981.

- H.137 13 October 1981.
- H.138 3 December 1981.
- H.139 22 February 1982.
- H.140 Lists of equipment ordered 1975-80.

WORKSHOPS

These were small gatherings of specialists, meeting informally and by invitation to discuss a specific existing or proposed research topic. They were sometimes suggested by the PSAC or SAC as a means of clarifying the state of research and the appropriate level of involvement of EMBL; some were timed to coincide with meetings of the committee, whose members were in any case invited. They had an important function, in the early days in determining the EMBL research programme and subsequently in monitoring and diffusing information about its progress, and are therefore included here as an aspect of its committees and working groups.

For additional information on workshops retained with material on research projects, or held at DESY and ILL outstations, see H.201, H.224-228, H.257.

- H.141 Membrane Workshop 18-22 October 1973.
- Correspondence, invitations, arrangements, lists of those invited, programmes, Kendrew's notes of papers and discussions, November 1972 - November 1973.
- H.142 Detector Workshop "Optics and detectors for diffraction studies of biological systems", 17 October 1973.
- Correspondence, list of participants, Kendrew's manuscript notes of papers, June-October 1973. See also H.145 for a later meeting on detectors.
- H.143 Proposed workshop on ribosome structure research by neutron diffraction, planned for June 1974 but postponed. See H.146.
- Correspondence, lists of participants.

- H.144 Workshop on Cell Separation Techniques, 8-9 June 1976.
Correspondence, invitations and replies, lists of participants, programme, Kendrew's notes.
- H.145 Meeting on "Area Detectors for X-rays", 4 May 1977. Proposal and brief correspondence only.
- H.146 Workshop on "Ribosome structure research by neutron and X-ray scattering", 16 January 1979.
Correspondence, invitations and replies, programme, Kendrew's notes.
- H.147 Proposed meeting on role of EMBL and responsibilities of the Director-General in the 1980s, referred to as "Konstanz III" on the model of earlier discussion meetings on the subject in 1969 and 1971. The proposal, put forward by D.L.D. Caspar and H. Buc, was discussed at the SAC meeting of April 1981. See also H.365.
- H.148 Workshop on "Pressure in Biology", 9-11 April 1981.
Correspondence, programme, list of participants, report of discussions.
- H.149 Workshop on "Computing and DNA sequences", 27-28 April 1981. See also H.180.
Programme, list of participants, notes.
- H.150 Workshop on "Biological structures", 23-24 September 1981.
Correspondence, programme, list of participants, reports of discussions. This, and the workshop on developmental biology (H.151) were organised by L. Philipson to help identify possible areas of future research at EMBL.
- H.151 Workshop on "Developmental biology", 19-20 October 1981.
Correspondence, programme, list of participants, reports of discussions.

RESEARCH DIVISIONS - HEIDELBERG

CELL BIOLOGY

Projects and staff

- H.152 Correspondence with colleagues 1970-73 on suggestions for projects and scope of work to be undertaken by Cell Biology Division.
- H.153 Notes and suggestions on appointments 1975-76.
- H.154 Membrane Group staffing 1975-76.
- H.155 Neurobiology Group staffing and space 1974-76.

CONTAINMENT FACILITY

Following the recommendation of the *ad hoc* EMBO committee on rDNA, the Council of EMBL decided at its meeting on 27 November 1975 that research on rDNA should be carried out at the Laboratory. The original plan for cell biology was modified and a new special laboratory was constructed to house the high-risk facilities which conformed to the stringent specifications (later somewhat relaxed) of the German authorities of the Zentrale Kommission für biologische Sicherheit (ZKBS). H.M. Darlow of the Microbiological Research Establishment, Porton, was adviser on equipment, and the architects were KA-Planungs GMBH.

Building and equipment

- H.156 Correspondence and papers 1974-77 on all aspects of building: advice from colleagues, proposed use of Porton facilities, costings, planning and space allocation, working group meetings, equipment.

- H.157 Architect's plans 1976.
- H.158 Correspondence and papers 1977 on German guidelines for rDNA research.
- H.159 Correspondence and papers 1978-79 on changes to high-risk laboratory required to conform with German guidelines, and on insurance.
- H.160 Correspondence and papers 1976-80 on equipment, especially safety cabinets, filters, fermentors.

Committees

When the building, equipment and testing of the facility neared completion and applications to use it could be envisaged, Kendrew set up two committees: the Priorities Committee (Chairman: K. Murray) to recommend applications and the appropriate containment level, generally working by postal consultation, and the Safety Committee (Chairman: Kendrew) with a local membership, to work out house guidelines and act as liaison body with ZKBS. Invitations were sent out in January 1978.

Priorities Committee

- H.161 Ideas for membership, invitations and replies. Draft proformas for research projects and committee assessments.
- H.162 Correspondence 1977-80 on applications to use P4 (high-risk) facility.

Safety Committee

- H.163 Ideas for membership, invitations and acceptances

- H.164 First meeting 7 February 1978.
- H.165 5 July 1978.
- H.166 1 September 1978.
- H.167 8 December 1978.
- H.168 26 February 1979.
- H.169 Not used.
- H.170 19 June 1979.
- H.171 14 February 1980.
- H.172 21 May 1980.
- H.173 12 December 1980.
- H.174 13 May 1981 (notice only; meeting not held).
September 1981 (correspondence only).

Miscellaneous

- H.175 Requests to visit containment facility or to receive
information, from universities, architects, official delegations
1976-79.
- H.176 Correspondence and reports on training courses in biological
safety measures at EMBL 1978-80.

- H.177 Miscellaneous correspondence: sale of enzymes 1976; MRE Porton 1977; staff 1977, 1978.

BIOLOGICAL STRUCTURES DIVISION

- H.178 General correspondence, notes and papers 1974-81 on affairs of the division, purchase of electron microscopes and other equipment, staff and space, research projects and visitors. See also H.190-H.192 for material on the STEM (Scanning Transmission Electron Microscope).
- H.179 Correspondence 1976-77 on suggestions for research projects and staffing.
- H.180 Correspondence, notes and papers 1978-82 on nucleotide sequencing. Includes programmes and reports on EMBL Workshops on computing and DNA sequences April 1980 and April 1981 (see H.149) and similar workshops and projects in USA. The work at EMBL was in the charge of G. Hamm under the guidance of K. Murray and the Nucleotide Sequence Data Library became available in March 1982. Folder includes first newsletter and release of the data base.
- H.181 Invitations and acceptances for membership of STEM Priorities Committee, July-August 1979.
- H.182 Reports and comments on the future of the Structures Division 1980.

INSTRUMENTATION DIVISION

A strong Instrumentation Division had always been an important part of proposals and policy for the Laboratory, and L. de Maeyer was appointed first Head of the Division in 1976. The work of the Division had to remain on a relatively low level during the period of temporary accommodation, but with the completion of the permanent building it was envisaged that nearly half of the whole activity of the Laboratory would eventually be devoted to instrumentation development. To advise on the research and development programme of the Division an Instrumentation Policy Planning Committee (IPPC) was set up in July 1978 (H.184-H.189).

The plans for the future direction of the laboratory after 1982 (see H.265) affected the Instrumentation Division. The changes were described in the EMBL Annual Report 1982 as follows:

"The change of directors at EMBL led to the formulation of a new scientific programme for the next 5-year period which was unanimously accepted by our Council in June 1982. This programme which is discussed later in this report has led to some changes both in the emphasis and the organization of the scientific effort. EMBL is now concentrating on three basic research areas: differentiation, cell biology and structures. Development of technology will be integrated into these basic research programmes as much as possible. The old instrumentation division has therefore been divided into four units so that all supportive technology from mathematics to biology can be associated with the appropriate scientific groups."

The four units were: physical instrumentation, biochemical instrumentation, biological instrumentation, computing and applied mathematics; in 1987 the last two of these were combined as "biocomputing".

- H.183 General correspondence 1976-81 on affairs of the Division: appointments, space and staff allocation, purchases of equipment, projects, visitors, meetings.

Instrumentation Policy Planning Committee (IPPC)

- H.184 Membership: suggestions, invitations and acceptances for full and corresponding members 1978-79.
- H.185 1st meeting 17 January 1979.
- H.186 2nd meeting 6 July 1979, at DESY, Hamburg.
- H.187 3rd meeting, 7-8 December 1979.
- H.188 4th meeting 30-31 October 1980.
- H.189 5th meeting 27-28 January 1982 (chaired by Kendrew). Includes correspondence and papers on proposed "white-beam" camera, preceding and following meeting.

Electron Microscopy

Correspondence, papers, research proposals mainly relating to purchase, installation and use of STEM (Scanning Transmission Electron Microscope) and other electron microscopes.

H.190 Reports and information on STEM from other users 1974: E. Kellenberger (Basle), A. Rörsch (Leiden).

H.191 Notes, correspondence and papers on STEM projects, specification and tenders for STEM at EMBL 1974-75.

H.192 Later correspondence and papers on STEM and other electron microscopes, research projects, meeting of European STEM Users at EMBL etc. 1978-81.

Computer Group

General correspondence on affairs of the Group: appointments, space and facilities, purchase and installation of machines, budgets, research proposals.

The first Head of Computing was R.F. Herzog and the material includes plans, reports and newsletters circulated by him both for the Heidelberg Laboratory and for the Hamburg and Grenoble outstations. See H.99 for Computer Policy Working Group.

H.193 1975-76. Selection, tenders, installation of first equipment (NORD), early newsletters.

H.194 1977.

H.195 1978. Includes Herzog's report of December 1978 which he entitled "The collapse of the EMBL Computer Group", and comments thereon.

- H.196 1977-81. Mainly on negotiations and agreement for EMBL to use Electronic Data Processing (EDP) facility at Max-Planck-Institut für Kernphysik.
- H.197 1979-81.

Computational Resources Committee

This was established in 1979 "to discuss the policy of the Laboratory for satisfying in-house computational needs"; the first meeting was 23-24 March (Chairman: S. Bremner).

- H.198 Papers, memoranda, Kendrew's manuscript notes, minutes of meetings etc. February 1979 - October 1980 on all matters affecting the organisation and future of the group; includes deliberations over the choice of a midi-computer system for which a separate Computer Planning Group was set up on 10 July 1980 whose minutes are also included. There are also reports and submissions by various other sub-groups on computing needs and organisation.

Computer Users' Group

- H.199 Minutes of meetings 1-10 (8 August 1979 - 13 February 1981), memoranda.

Research proposals and projects

- H.200 High voltage electron microscopy (not taken up at EMBL). Correspondence 1973-75.
- H.201 Detectors.
Correspondence and papers 1975-81 on various types of detectors, including the "position-sensitive detector" developed for research programmes at DESY and ILL and on behalf of other European laboratories; much of this work was done by A. Gabriel. Folder includes patent applied for, information on workshops held on detectors, reports on research going forward elsewhere, collaboration with other laboratories. See also H.142, H.145.

H.202

Cell sorters.

Correspondence and papers 1976-78. See also H.144.

OUTSTATION AT DEUTSCHES ELEKTRONEN SYNCHROTRON (DESY) - HAMBURG

Provision for a synchrotron radiation facility, to be incorporated into the storage ring project of the Deutsches Elektronen Synchrotron (DESY) at Hamburg, had been included in the revised Laboratory proposal of 1970, with the aim of making available an intense source of x-rays for diffraction experiments in molecular biology. It consisted of two "bunkers", the B-bunker later called Bunker II, to be built first, on the synchrotron, and the A-bunker later called Bunker IV, the larger of the two and the permanent outstation headquarters, on the storage ring. The DESY synchrotron had come into operation in 1964 and the double storage ring system (DORIS) was in use from 1974.

Much of the early correspondence is with K.C. Holmes, then Professor (later Director) of Biophysics at the Max-Planck-Institute for Medical Research, who supervised some of the preliminary research at DESY, acted as EMBL "Gruppenspracher" and as acting part-time head of the outstation until the appointment of H.B. Stuhrmann from October 1976. See H.205 for Kendrew's reference to the early history of the outstation in his speech at the signing of the EMBL/DESY Agreement.

A regular user of the DESY facility was H.E. Huxley who, among others, contributed memoranda and letters on its development and suggestions for changes or improvements.

Early History

- H.203 Correspondence, notes and memoranda 1970; early approaches to DESY (letter drafted by Holmes), arrangements for preliminary experiments, copy of proposal for facility.
- H.204 Correspondence, notes and memoranda 1971; building, research, finance, staff contracts, early operating tests on DORIS.
- H.205 Correspondence, drafts, text, arrangements for ceremony of signature of Agreement between EMBL and DESY (signed 21 April 1975). Kendrew's speech at ceremony included reference to work of K.C. Holmes and others in getting the project started.

Relations with DESY

General correspondence and papers on the development of DESY and the EMBL facility.

- H.206 1977-78. Modification of DORIS into a part-time dedicated source, and EMBL access to beam time.
- H.207 1979-80. Development and inauguration of Positron Electron Tandem Ring Accelerator (PETRA), construction of new Hamburg Synchrotron Radiation Laboratory (HASYLAB) inaugurated January 1981, EMBL beam time.
- H.208 1979-81. Use of DESY IBM computer centre by EMBL workers.
- H.209 1981. Correspondence and memoranda on EMBL beam time.
- H.210 Miscellaneous shorter correspondence.

DESY Committees

- H.211 Extended Research Committee (Forschungskollegium). Kendrew was invited to serve for three years from June 1974, the first meeting of the committee scheduled to follow the inauguration of DORIS. The committee was dissolved in December 1976, when an Extended Scientific Council and a PETRA Research Committee were set up.
- Correspondence, minutes, notes.
- H.212 Scientific Council (Wissenschaftlicher Rat) (Extended Scientific Council from January 1977). Kendrew was invited to serve in May 1976 and was a member until 1980.
- Correspondence, agenda and minutes, material relating to the development of PETRA.

H.213 PETRA Research Committee. Minutes of meetings 1-3, 7-11 and 1st combined meeting with DESY Research Committee 1976-79.

Staff

H.214 1972-76. Build-up of staff, appointments, attendance at conferences etc., up to 1 October 1976 when H. Stuhmann became first full-time head of the outstation for a period of five years. From 1 October 1981 J. Bordas and M.H.J. Koch were appointed joint heads for a two-year period.

H.215 1977-81.

H.216 Appointment 1976.

H.217 Appointment 1979 (at ILL Grenoble as well as at DESY).

Equipment

Notes, memoranda, reports, equipment proposals and assessments, research proposals requiring equipment, correspondence 1972-82. Much of the material deals with the planning and purchase of computer equipment for DESY and should be consulted in conjunction with related material in the Instrumentation Division Computer Group, and the Scientific Purchases Committee.

H.218 1972-76.

H.219 1977.

H.220 1978-82.

Research

- H.221 Priorities Committee, set up in 1973 to evaluate applications to use DESY facility; the members then were A. Engström, K.C. Holmes, H.E. Huxley, J.C. Kendrew, V. Luzzati and the work was mainly conducted by correspondence.
- Correspondence and papers 1973-81, including invitations, acceptances, lists of research projects 1976-79 with date of submission, name of proposer, title and remarks on state of project.
- H.222 Correspondence, reports and papers 1971-81 on synchrotron radiation research and facilities at other laboratories: Laboratoire pour l'Utilisation du Rayonnement Electromagnétique (LURE) Paris; Synchrotron Radiation Source (SRS) Daresbury; Institute of High Energy Physics, Novosibirsk; proposed European Synchrotron Radiation Facility (ESRF).
- H.223 Miscellaneous reports on equipment and research at DESY 1975-78.
- H.224-H.228 Workshops and meetings at DESY.
- H.224 "Diskussionstagung" on problems in neutron and synchrotron radiation research, 7 December 1976. Invitation, abstract, note of discussions.
- H.225 Plan for workshop on "X-ray and neutron scattering by biological macromolecules", March 1978.
- H.226 "The use of X-ray synchrotron radiation in molecular biology", 23-25 October 1978.
- Programme, invitations, costing.
- H.227 "X-ray and neutron scattering of biological structures", 24-28 September 1979.
- Programme, lists of participants and abstracts.

- H.228 "X-ray position sensitive detectors and energy discriminating detectors", 17-21 November 1980.
Programme, lists of participants and abstracts.
- H.229-H.237 Correspondence, reports and papers, research proposals from members of DESY staff or from visiting scientists, reports on research or on facilities at DESY, requests to use equipment or work for long or short term periods etc.
- H.229 1972, 1974.
- H.230 1975.
- H.231 1976.
- H.232 1977.
- H.233 1978-79. Project on time-resolved fluorescence.
- H.234 1978.
- H.235 1979.
- H.236 1980.
- H.237 1981-82.

OUTSTATION AT INSTITUT MAX VON LAUE-PAUL LANGEVIN (ILL) - GRENOBLE

The proposal to establish an outstation at Grenoble placed before the European Molecular Biology Conference in October 1971 was based on the importance of neutron diffraction for research in molecular biology; this had first revealed its potential as a result of the commissioning of the high flux reactor at Brookhaven National Laboratory, New York. The development of the reactor at the Institut Max Von Laue-Paul Langevin (ILL) at Grenoble provided an even higher neutron flux which it was desired to make available to European biologists in close connection with the main EMBL at Heidelberg.

The earliest papers preserved here date from June 1971 and form a sequence of correspondence, notes, memoranda and minutes covering the protracted negotiations which are concerned with the basic principle of collaboration between EMBL and ILL (fairly rapidly agreed), delays over the signing of the Laboratory Agreement, budgetary constraints, difficulties over accommodation and buildings for EMBL outstation workers and adequate access for them to ILL facilities, and the political and financial dimensions involved in the UK decision to participate in the ILL project. For these reasons the "early history" covers a somewhat longer period than that of the DESY outstation at Hamburg, the formal Agreement between EMBL and ILL being signed on 18 March 1977.

For several years the EMBL outstation was housed in rented laboratories at the Centre d'Etudes Nucléaires de Grenoble (CENG) although it had been agreed in principle that EMBL would eventually have its own building; the preferred solution was a shared building with ILL for which a formal contract was signed on 13 December 1979. Work started in November 1980 and was completed in the spring of 1982.

During the early negotiations, Kendrew consulted B.P. Schoenborn who had obtained the first important neutron diffraction results at Brookhaven and who, he hoped, might in due course direct the EMBL outstation should the project come to fruition. In the event Schoenborn remained at Brookhaven and the first head of the Grenoble facility was A. Miller, for five years from 1 September 1975 to 31 August 1980; he was succeeded by B. Jacrot who had been associated with EMBL at ILL from the beginning as Senior Scientist in charge of the Biology Group.

Early History

- H.238 Correspondence, notes and memoranda 1971; early approaches to B.P. Schoenborn, B. Jacrot, and others, drafts and final version of proposal for outstation for submission to EMBC, visits to Grenoble, favourable view of collaboration with EMBL expressed by ILL Steering Committee.
- H.239 Continuing negotiations, visits and correspondence 1972; includes Kendrew's formal letter 13 October outlining proposals for EMBL establishment at ILL, his notes of meetings and discussions etc.
- H.240 Continuing negotiations etc. 1973, formal letter from ILL 17 April on terms of collaboration and drafts for document for agreement by EMBL and ILL Committees, problem of accommodation.
- H.241 Correspondence 1973 on possible accommodation for EMBL at chemistry building of Institut des Sciences Nucléaires, Université de Grenoble.
- H.242 Continuing negotiations, notes of meetings and discussions 1974, largely concerned with problem of accommodation and access to ILL for EMBL workers. No laboratory accommodation within ILL was made available.
- H.243 Correspondence, notes, minutes etc. re accommodation for EMBL at Centre d'Etudes Nucléaires de Grenoble (CENG) in the Laboratoire de Moyenne Activité (LMA). Mainly 1973-74, but also a little later correspondence on CENG matters including Kendrew's letter of thanks December 1981 when EMBL moved into its new laboratories.
- H.244 Correspondence 1974 with CERN on store and workshop facilities made available for EMBL during early days.
- H.245 Correspondence, drafts, revisions, text for Headquarters Agreement between French Government and EMBL relating to privileges and immunities of EMBL "in France", signed 3 March 1976.

H.246 Correspondence, text for Agreement between ILL and EMBL, signed 18 March 1977.

ILL-EMBL Building

H.247 Correspondence, notes, plans, reports, minutes etc. 1976-81 on shared building constructed during "deuxième souffle" building programme of ILL. The joint construction project was put before the EMBL Finance Committee on 24 November 1978 and approved in principle by EMBL Council on 30 May 1979; the contract was signed on 13 December 1979.

ILL Scientific Council

Kendrew served as an "observer" on Sub-committee 8 (Biochemistry) of the ILL Scientific Council from 1975. Material includes minutes of meetings, lists of research proposals and a little correspondence.

H.248 1975.

H.249 1976.

H.250 1977.

H.251 1978.

H.252 1979.

H.253 1980.

H.254 1981.

Staff

H.255 Correspondence and papers 1972-82 on appointments, recruitment, attendance at courses and conferences, salary scales, lists of staff complement and research interests.

See also H.217.

Equipment

H.256 Correspondence, plans of laboratory space, lists of requirements and cost estimates 1974-81 including computer planning and selection.

Research

H.257 Deuteration facility. Correspondence and papers 1977-81 on informal workshop on deuteration methods 18 July 1977 to discuss the proposed facility (to prepare selectively deuterated biological specimens for neutron diffraction and scattering studies) and on supplies of "heavy water" (D₂O) required for work.

H.258 Proposal for Small Angle Neutron Scattering facility, to be developed jointly by EMBL and Risø National Laboratory (RNL) Denmark. Correspondence, assessments, papers 1978-80. See also H.87.

H.259 1979-80. Alfalfa mosaic virus.

H.260 1980. Neutron spallation.

H.261 1981. Influenza B virus.

H.262 Miscellaneous reports and notices on facilities available and research in progress at outstation 1976, n.d.

RESEARCH PROGRAMMES

Copies of periodic "Scientific program and indicative scheme" for EMBL.

- H.263 1975, with some correspondence and comments.
- H.264 1980-83, with drafts, notes, correspondence and comments 1978-80.
- H.265 1983-87, with notes of meetings of Senior Scientists of EMBL September 1981 - January 1982 to discuss and draw up plans for future scientific programme with L. Philipson. See introductory note to Instrumentation Division.

SEMINARS, LECTURES, COURSES

SEMINARS

Correspondence with visiting speakers, arrangements and notices for seminars. Internal seminars were also held, the first being on 23 September 1975.

H.266 1975.

H.267 1976.

H.268 1977.

H.269 1978.

H.270 1979.

H.271 1980.

H.272 1981.

H.273 "Heads of Groups" meetings, informal discussions and talks to acquaint staff with the work going forward in the various EMBL research groups under the heading "What is going on at EMBL" 1977-80.

LECTURES

A lecture programme was started in 1978, given by distinguished visiting speakers and intended for a wider scientific audience than the specialist seminars; the inaugural lecture was given on 15 November by A. Gierer. Material includes invitations, correspondence, arrangements and notices.

H.274 1978.

H.275 1979.

H.276 1980.

H.277 1981.

H.278 1982.

H.279 Kendrew's lists and notes of possible lecturers, letters of invitation declined or postponed, suggestions by others for lecturers or topics etc.

COURSES

H.280 Miscellaneous information, programmes, schedules etc. of courses and summer schools at EMBL.

VISITORS AND STAFF

VISITORS

These are requests to visit the laboratory: from scientists writing on their own behalf about research projects, or in a representative capacity on behalf of institutions or departments interested in laboratory organisation, teaching or research programmes; from government departments or embassies interested in setting up laboratories or in the workings of an international institution; from delegations or representatives of EMBL member states or elsewhere. Some of the exchanges are brief, others include information on proposed research and building plans on national and international levels, comments on EMBL organisation, letters of thanks and the like.

General correspondence

H.281 1974-76.

H.282 1977.

H.283 1978.

H.284 1979.

H.285 1980.

H.286 1981-82.

Official visits and delegations

H.287 1975-79.

- H.288 1979. Visit by Visiting Subcommittee, Medical Research Council 13 February 1979. Correspondence and papers. For the Council's letter to Kendrew reporting on their visit, see J.98.
- H.289 1980-81.
- H.290 Official German visits 1976-80.
- H.291 Miscellaneous correspondence and arrangements for exchanges with Chinese scientists 1979-82, mainly for visits by Chinese but a few visits to China by members of EMBL staff.

STAFF

The following material relates mainly to early recruitment of scientific staff. Some correspondence and material relating to appointments of scientists at EMBL remain in Kendrew's hands. Material relating to administrative staff appointments is at H.334-H.344.

- H.292 Information and newsletters circulated by Kendrew to members of EMBO asking for help in recruiting suitable staff, job descriptions, with some replies and suggestions, various dates 1975-78.
- H.293 Notes, drafts, tables on build-up of EMBL staff and distribution of nationalities, 1975-80.
- H.294 Miscellaneous correspondence etc. on technical staff.
- H.295 Correspondence and papers on postdoctoral fellowships, suggestions for possible projects submitted by EMBL senior scientists, circular to members of EMBO and correspondence arising 1976-82.
- H.296 Correspondence on short secondments, "stages" or sandwich courses at EMBL 1977-81.

MEMBERSHIP

Correspondence and papers with member states on their membership of EMBL, and with others on possibility of their joining. In alphabetical order.

- H.297 Denmark. Working Party of Danish research councils to study Denmark's continuing participation in EMBL. Correspondence, copy of report and English translation, press comment 1979-80.
- H.298 Finland. Brief correspondence only, 1982, on possibility of Finnish membership.
- H.299 France. Ratification of Agreement 1977, correspondence 1978.
- H.300 Greece. Brief correspondence only, 1978, on possible membership.
- H.301 Israel. Adjustment of contribution 1979.
- H.302 Italy. Ratification of Agreement 1976, correspondence on Italian involvement in EMBL 1981.
- H.303 Norway. Visit to EMBL by Norwegian Research Council and possible membership 1974, 1976-77.
- H.304 USSR. Correspondence on costs of possible membership 1977.

ADMINISTRATION

ORGANISATION AND PLANNING

- H.305 Early drafts and memoranda on various aspects of Laboratory organisation: working hours, travel and subsistence regulations (and later revisions), leave records, visiting workers and fellows, almost all with Kendrew's revisions and corrections, various dates 1973-81.
- H.306 Correspondence on conditions of appointment and dismissal of senior staff and the grant of indefinite contracts 1976-77, notes on administrative staff requirements
- H.307 Space allocation in EMBL, including estimates by staff members for their requirements in the new laboratory 1977 and later plans for laboratory and "denkzimmer" space 1979-81.
- H.308 Papers and correspondence 1974-75 on drafting of staff rules and regulations, with manuscript notes and comments by Kendrew and others.
- H.309 Proposed revision of rules of administrative procedure drawn up March 1982 for implementation by L. Philipson as Director-General.
- H.310 Correspondence and papers 1975-79 on the employment of the EMBO/EMBC secretariat staff as staff members of EMBL.
- H.311 Information about EMBL; includes information folders prepared for all personnel appointed to laboratory, and dossier of essential documents - Headquarters and Outstation agreements, financial and staff regulations, Council, SAC etc.

COMMITTEES

Library

The library was regarded by Kendrew as an essential part of the laboratory from the beginning and a librarian (Mrs M. Holmes) was in place from 1975. When the Library Committee was set up in 1976 he took the view (note of 16 November 1976) that the library belonged to the scientific operation of the laboratory and not to the administration, and, since it did not belong specifically to any one of the divisions, that it should come directly under the Director-General.

H.312 Miscellaneous papers and correspondence 1974-80 mainly relating to start of Library and Committee and to its naming after Leo Szilard. See also H.48.

Standing Advisory Committee

This was set up in 1977 in accordance with Staff Regulations to "advise the Director-General on general questions concerning the personnel . . . ", with two representatives elected by the staff and two nominated by the Director-General. The committee met for the first time on 31 May 1977.

H.313 Setting-up of committee, minutes of meetings 1977-79.

Laboratory Safety Committee

Set up August 1978.

H.314 Papers and minutes 1978-81.

Joint Advisory Appeals Board

Set up in accordance with Staff Regulations in September 1979.

H.315 Papers 1978-81. Also included is brief correspondence with International Labour Office (ILO) on EMBL acceptance of ILO Administrative Tribunal in respect of staff complaints.

Heads of Section meetings

H.316 Notices of informal meetings instituted by Kendrew from August 1978 for heads of sections in administration to discuss any topic of general interest or concern.

Building Maintenance

Set up in August 1978 under Kendrew's chairmanship.

H.317 Papers and correspondence 1978-81.

Canteen

A provisional Canteen Committee was set up in September 1977 for the move into the new building and replaced by a new committee with "regional representatives" which met for the first time on 22 June 1978.

H.318 Papers, correspondence, minutes 1977-82.

FINANCE

Conditions of contracts with EMBL

- H.319 Papers, correspondence, drafts and minutes 1976-77 mainly relating to Working Group set up 26 February 1976 (Chairman: P. Fasella) to examine subject.

Internal financial rules and regulations

- H.320 Drafts, correspondence and comments, Kendrew's manuscript notes 1977-78, proposed revision 1980.

Internal Audit

The Internal Auditor was appointed by the Director-General and reported quarterly to him. His reports and findings on the administration of the laboratory and its outstations were made available to those concerned and to the External Auditors appointed by the Council. During the period covered here the Internal Auditor was J. Willert, appointed after the meeting of the Finance Committee in November 1979, and the External Auditors with whom some correspondence is included were the Danish firm Rigsrevisionen. The official Audits and Director-General's comments thereon are included in the papers of the EMBL Finance Committee at H.378-H.417.

- H.321 Papers, correspondence, reports of Internal Auditor and comments of members of laboratory staff involved, drafts of reports of External Auditors and correspondence arising, August 1979 - December 1981.

Salaries

- H.322 Miscellaneous correspondence and memoranda on fixing, adjustment and review of EMBL salary scales with special reference to inflation rates and comparability in Germany and France (Grenoble outstation), and with other international organisations, June 1975 - May 1981 when a "Working Group on the EMBL System of Remuneration" was set up. (See H.323 and H.326.)

- H.323 Papers and correspondence of Working Group on EMBL salaries (Chairman: C.A. Ladage) June-November 1981.
- H.324 Papers and correspondence on Working Group set up to study possible adoption by EMBL of Co-ordinated Organisations' remuneration system March 1977 - May 1980.

STAFF ASSOCIATION

Moves to initiate a staff association began in April 1976 and a Pilot Committee was formed in June to draft statutes (Chairman: N. Strausfeld). This proved a protracted matter, first because the proposed draft was unsatisfactory and was extensively revised by Kendrew when submitted for his scrutiny, and later because of the association's possible affiliation to the German Trades Union Congress with difficulties arising for the international status of EMBL. After considerable comment and re-drafting, the statutes were formally accepted by Kendrew in May 1978 and a Committee elected in September.

- H.325 Early papers, drafts and correspondence on Statutes April 1976 - September 1978.
- H.326 Papers, memoranda, correspondence with Staff Association (Chairman: J. Dubochet) on various EMBL affairs but mainly appointment and contracts, salary scales, membership of Co-ordinated Organisations etc. and including papers and representations made to Working Groups (see also H.322, H.324) 1978-80.

MISCELLANEOUS

- H.327 Education, lodging and housing.
- H.328 Relations with City of Heidelberg and local community 1973-82, including material prepared for Open Day May 1979 and Kendrew's speech at the "topping-off ceremony" of the Laboratory in October 1976.

- H.329 University of Heidelberg. Kendrew's letters 1976, 1980 on research and appointments and the maintenance of Heidelberg as a leading European centre of research.
- H.330 Patents 1978-82.
- H.331 Shorter correspondence and memoranda 1976-81.
- H.332 Annual reports. Kendrew's notes on circulation and content, correspondence and notices to staff asking for contributions and a few drafts for early reports. Schedules, some letters of thanks and congratulation or requests for copies. Various dates 1975-81.
- H.333 Press and publicity 1972-87. Includes press releases, press-cuttings, arrangements or requests for articles, comments, interviews, visits by journalists, radio and film units, some drafts, transcripts, photographs.

APPOINTMENTS

Members of administrative staff

Correspondence, contract, references, future career etc. In alphabetical order.

- H.334 Bach, B.L.V. 1975-78.
- H.335 Beer, O. 1974-82.
- H.336 Gale, D.S. 1976-82.
- H.337 Giorgio-Alberti, G. 1974.

H.338	Guggenbühl, D.	1973-74.
H.339	Heckl, K.W.	n.d.
H.340	Leenart, G.C.	1970-73
H.341	Pasquill, J.	1980-82.

Applications and recruitment

Includes correspondence with colleagues on recommendations, Kendrew's notes, schedules for interviews, assessments, general affairs of EMBL.

H.342	Possible appointments at EMBL 1973.
H.343	Similar, including Head of Administration 1974-75.
H.344	Head of Administration (not filled) 1978.

DIRECTOR-GENERAL'S NOTES AND CORRESPONDENCE

NOTES

These are the contents of loose-leaf binders of varying format; they are manuscript notes, usually dated, on all topics relating to the scientific programme, appointments and building of EMBL. They include Kendrew's own ideas, lists and schedules, notes of discussions with others, suggestions made at conferences, subjects raised or to be raised at EMBO, EMBC or EMBL meetings, timetables and deadlines, staff and space allocation etc. They often antedate or complement more formal material as well as indicating the intense dedication Kendrew brought to the laboratory project.

- H.345 Small format notes. Includes lists of names in various research fields suggested 1967 and at Konstanz and Haarlass meetings 1969 and 1971, memberships of working groups and committees, notes of discussions on building, staff, equipment 1971-73.
- H.346 Small format notes. Appointments and projects at DESY, Cell Biology, other miscellaneous notes 1975-77.
- H.347 Small format notes. Charts of laboratory staff by grade, division etc. with manuscript note "Superseded January 1981".
- H.348 Similar, more extensive charts, including DESY and ILL.
- H.349 Small format notes. Lists of members of EMBL committees.
- H.350 Small format notes. Dinners and guests at EMBL.
- H.351 A4 format notes. Appointments and research, costings and estimates for equipment and personnel, discussion and telephone notes 1973-74.

H.352 A4 format notes. Charts, lists etc. on staff and space allocation at EMBL.

Notes and correspondence on specific projects and appointments

H.353 rDNA 1976-77.

H.354 Neurobiology 1977-80.

H.355 Membranes 1979.

H.356 X-rays 1976-1979.

H.357 Electron microscopy 1973-76.

H.358 Instrumentation 1974, 1978.

KENDREW'S APPOINTMENTS AND CAREER AT EMBL

Project Leader

The appointment was authorised by EMBC on 15 October 1971 and took effect from 28 June 1972.

H.359 Correspondence and papers August-December 1971; includes formal resolution, offer of post, salary and conditions etc.

Director-General

The Council of EMBL decided at its session of 10-11 October 1974 to invite "the present Project Leader to assume the duties of the Director-General". After various negotiations over salary, terms of service, pension rights etc. involving EMBL Council and MRC, the contract was agreed for an appointment of three years with the possibility of a renewal for two periods of two years, with effect from 1 January 1975.

- H.360 Correspondence and papers, negotiations, contract, with EMBL August 1974 - April 1975.
- H.361 Similar material, negotiations on secondment from MRC July 1974 - July 1975.
- H.362 Diplomatic status, privileges and immunities of Director-General of EMBL.
- H.363 Extension of contract 1977.
- H.364 Extension of contract 1979 (to January 1981) and 1981 (to March 1982), leaving settlement at EMBL, pension rights at MRC etc. October 1979 - October 1981.
- H.365 Papers and correspondence regarding Kendrew's retirement and the appointment of his successor (L. Philipson, with effect from 1 April 1982) December 1977 - June 1982. Includes discussion notes and representations, report of Search Committee, possible "Konstanz" meeting on future direction of EMBL etc. See H.344 for a little related correspondence.
- H.366 Earlier correspondence and papers January 1974 - January 1975 on research plans of L. Philipson.
- H.367 Arrangements for leaving Heidelberg, farewell parties, letters of thanks and good wishes, some with reminiscences.

PERSONAL CORRESPONDENCE

H.368 Kendrew's address lists, personal correspondence at EMBL 1974-81.

H.369 Miscellaneous shorter personal correspondence 1976-82.

DIRECTOR-GENERAL'S CORRESPONDENCE

Carbon copies of Kendrew's letters and telexes on all affairs of EMBL: committees, appointments, research, visitors etc. Includes a little "personal" material relating to meetings, committees and conferences of other organisations with which Kendrew was involved, invitations to academic and social occasions.

H.370 1975.

H.371 1976.

H.372 1977.

H.373 1978.

H.374 1979.

H.375 1980.

H.376 1981.

H.377 1982.

FINANCE COMMITTEE AND COUNCIL MINUTES

The material includes full sets of papers presented at the meetings, some with annotations by Kendrew, and may also include correspondence preceding or arising from meetings, or Kendrew's manuscript notes of proceedings.

- H.378 Correspondence, notes, summaries of informal meetings of members of EMBL and EMBC Councils, 1975, 1976, 1977.
- H.379 Provisional Laboratory Council 5 July 1974. (Notice and agenda only.)
- H.380 Finance Committee (first meeting) 10 October 1974.
- H.381 Council (first meeting) 10-11 October 1974.
- H.382 Finance Committee 23 May 1975.
- H.383 Finance Committee 2-3 July 1975.
- H.384 Council 3-4 July 1975.
- H.385 Finance Committee 21 October 1975.
- H.386 Finance Committee 25-26 November 1975.
- H.387 Council 27 November 1975.
- H.388 Finance Committee 26 February 1976.

- H.389 Finance Committee 28-29 June 1976.
- H.390 Council 30 June 1976.
- H.391 Finance Committee 22-23 November 1976.
- H.392 Council 24 November 1976.
- H.393 Finance Committee 1 March 1977.
- H.394 Finance Committee 4-5 July 1977.
- H.395 Council 6 July 1977.
- H.396 Finance Committee 5-6 December 1977.
- H.397 Council 7 December 1977.
- H.398 Finance Committee 8-9 May 1978.
- H.399 Council 10 May 1978.
- H.400 Finance Committee 9 October 1978.
- H.401 Finance Committee 11-12 December 1978.
- H.402 Council 11-13 December 1978.
- H.403 Finance Committee 23 February 1979.

- H.404 Finance Committee 29-30 May 1979.
- H.405 Council 30-31 May 1979.
- H.406 Finance Committee 19-20 November 1979.
- H.407 Council 21 November 1979.
- H.408 Finance Committee 3 March 1980.
- H.409 Finance Committee 10-11 June 1980.
- H.410 Council 11 June 1980.
- H.411 Finance Committee 24 November 1980.
- H.412 Council 25 November 1980.
- H.413 Finance Committee 16 March 1981.
- H.414 Finance Committee 3 June 1981.
- H.415 Council 3 June 1981.
- H.416 Finance Committee 8-9 December 1981.
- H.417 Council 9 December 1981.

SECTION J

UK SOCIETIES, ORGANISATIONS, CONSULTANCIES

J.1-J.176

- J.1 BRISTOL UNIVERSITY
- J.2-.J.12 BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (BAAS)
- J.13, J.14 BRITISH BIOPHYSICAL SOCIETY
- J.15 BRITISH BROADCASTING CORPORATION SCIENCE CONSULTATIVE GROUP
- J.16 BRITISH COUNCIL
- J.17 BRITISH MUSEUM
- J.18 CAMPAIGN FOR BETTER BROADCASTING
- J.19 CIBA FOUNDATION
- J.20, J.21 COMMONWEALTH SCIENCE COUNCIL (CSC)

- J.22-J.66 COUNCIL FOR SCIENTIFIC POLICY (CSP)
- J.67-J.69 DESIGN RESEARCH UNIT
- J.70-J.94 HIGH ENERGY PARTICLE PHYSICS REVIEW GROUP (HEPP)
- J.95 IMPERIAL CHEMICAL INDUSTRIES LTD. (ICI)
- J.96-J.98 MEDICAL RESEARCH COUNCIL (MRC)
- J.99-J.103 MINISTRY OF DEFENCE
- J.104-J.111 MINISTRY OF OVERSEAS DEVELOPMENT
- J.112-J.116 QUEEN ELIZABETH HOUSE OXFORD
- J.117-J.123 ROYAL INSTITUTION
- J.124-J.176 ROYAL SOCIETY

BRISTOL UNIVERSITY

1982

Special Committee of Court 1982

J.1 Correspondence, papers, memoranda, submissions, reports etc. for Special Committee of the University Court set up to consider the future of the Department of Architecture. Kendrew was Chairman.

Material includes arrangements for and minutes of Committee's meeting on 26-27 June, drafts, comments and amendments on its report, note of second meeting 29 July, redrafts of report, correspondence with D.C. Hodgkin (Chancellor, Bristol University), submissions and representations from architects, schools of architecture, local societies and other interested parties, correspondence and papers following Committee's report. May-November 1982.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (BAAS)

1965-66, 1972-76

Apart from a little earlier correspondence about lectures (J.2), most of the material relates to 1972-74 when Kendrew was most deeply involved with the BAAS. In March 1972 he accepted the invitation of the then President (Sir Vivian Fuchs) to allow his name to go forward as President-Elect in 1972-73 and President in 1973-74. He was installed at the Annual Meeting in 1973 at Canterbury and gave the Presidential Address at the 1974 Annual Meeting at Stirling. He was also invited, but declined, to accept the Presidency of Section X (General) in 1972-73.

The principal officials of the BAAS during Kendrew's period of office, with whom much of the correspondence is exchanged, were M. Pyke (Secretary and Chairman of Council), A.M. Hughes, R.P. Saville (Assistant Secretaries).

The material deals with the general affairs of the BAAS, staff and appointments, as well as requests to Kendrew to lecture and advise.

J.2

1965-66

Correspondence re Kendrew's lectures for BAAS in Northern Ireland (first Hans Sloane Memorial Lecture) and Harrogate. See L.148 for notes for Hans Sloane Lecture.

J.3

1972

Nomination as President-Elect, election to Council, British Association Publications Committee.

J.4

1973 January-August

Miscellaneous requests to lecture, join Study Groups; arrangements for Annual Meeting at Canterbury and interview for Southern Television.

J.5

1973 September-December

Appointments, staffing, funding, organisation.

- J.6 1973 September-December
- General correspondence on affairs of BAAS, formation of British Association Student Section (BASS) etc.
- J.7 1974 January-July
- Appointments, organisation, funding, BAAS film and television awards, proposed BAAS working parties on nutritional relief, energy crisis, science policy research.

136th Annual Meeting at Stirling, 2-7 September 1974

- J.8 Organisation and arrangements December 1972 - October 1974. Includes preliminary meetings and discussions with BAAS and with University, visit and "Launching Meeting" at Stirling January 1973, later planning visit to Stirling November 1973, draft programmes, budget etc.
- Printed programme of meeting, schedule of President's and officers' engagements.
- J.9 Arrangements for Inaugural Meeting and conferment of honorary doctorates on President and others.
- J.10 Invitations to speak, open sessions etc. during Stirling meeting. See also L.92.
- J.11 Kendrew's Presidential Address: "Science and the Challenge of the Time".
- 16pp. manuscript draft; 16pp. typescript version; miscellaneous manuscript notes, some with dates in July, August 1974.
- J.12 1974-76
- Appointments, requests to lecture. See L.149 for lectures and talks by Kendrew in 1974, including the Stirling meeting.

BRITISH BIOPHYSICAL SOCIETY (BBS)

1959-81

See also:-

INTERNATIONAL UNION OF PURE AND APPLIED BIOPHYSICS (IUPAB) K.46-K.52

ROYAL SOCIETY BRITISH NATIONAL COMMITTEE FOR BIOPHYSICS J.127-J.134

The first steps towards the foundation of the Society were taken at a joint meeting on 6 March 1959 of the Biophysics and Biophysical Chemistry Sub-committee of the Faraday Society and the International Biophysics Organising Committee (Kendrew attended as a member of the latter). At the meeting it was resolved that the Sub-committee should be re-constituted as a full Committee of Council of the Faraday Society (not a Sub-committee of the Colloid and Biophysics Committee). A working party was set up and met for the first time on 4 February 1960 (Chairman: J.A.V. Butler), when it was proposed that a new Society be formed under the name "The Biophysical Society of Great Britain". Butler continued as Chairman, and Kendrew became the first Honorary Secretary of the Steering Committee (formed from the Working Party). The Steering Committee held 13 meetings between 4 May 1960 (when the name British Biophysical Society was adopted) and 12 December 1961 which was also the first Annual General Meeting. At this latter meeting the Society's rules were approved, and the first formal Committee meeting was held on 21 February 1962. Kendrew continued as Honorary Secretary until December 1962, his successor being D.D. Eley. He served on the Committee 1963-65 and was elected Chairman in 1964 until February 1965 when he resigned because of pressure of other commitments, being succeeded by M.H.F. Wilkins.

J.13 Minutes and committee papers 1959-66.

Includes Working Party and Steering Committee meetings 1-13, early bulletins and newsletters, draft rules, Committee meetings 1-16.

J.14 Correspondence on various affairs of the Society 1963-81.

Includes correspondence 1964 on possibility of abstracts of BBS papers being published in *Journal of Molecular Biology*, and correspondence 1980-81 on 21st anniversary meeting at Leeds, with a short account of the formation of BBS written by P.M. Harrison (Chairman, 1981).

BRITISH BROADCASTING CORPORATION SCIENCE CONSULTATIVE GROUP

1964-67

J.15 The Group was set up in 1964 "to advise on the general nature of programmes on science" as a consequence of the Pilkington Committee, and had its first meeting on 29 May under the Chairmanship of Sir Alexander Haddow. Kendrew served from the inception of the Group until December 1967.

Folder includes correspondence with colleagues and BBC officials, minutes and background papers, ideas and comments on programmes.

BRITISH COUNCIL

1974-76

J.16 Sub-committee on Interchange with France. Kendrew was Royal Society representative from 1974.

Brief correspondence and information only, 1974-76.

Kendrew also served on the Scientific Advisory Committee from its first meeting November 1982 for three years (renewed October 1985).

BRITISH MUSEUM

1974-79

Kendrew served as a Trustee of the British Museum at the nomination of the President of the Royal Society (A.L. Hodgkin) for five years from April 1974.

J.17 Brief correspondence only, mainly letters of invitation to serve and of thanks at end of period.

CAMPAIGN FOR BETTER BROADCASTING

1969

This was a pressure group launched in September 1969 to draw attention to the proposals set out in the BBC report "Broadcasting in the '70s". Kendrew was one of the signatories of the first public letter circulated by the group.

- J.18 Correspondence with secretary of the campaign (N.R. Jones), Director-General of BBC, arrangements for meetings, memoranda, background material etc.

CIBA FOUNDATION

1965

Working Party on International Research Centres

Kendrew was a member of the working party and contributed information and publications concerning international organisations. The first meeting was on 25 March 1965. Because of his involvement with the Council for Scientific Policy (q.v.), however, he felt that it was difficult for him to take an active part and in July he suggested to the organiser that "you had better count me out of the exercise".

- J.19 Mainly correspondence about meetings, but includes Kendrew's list of publications dealing with international organisations, and a copy of L. Kowarski's paper "An account of the origins and beginnings of CERN" (1961).

COMMONWEALTH SCIENCE COUNCIL (CSC)

1983-84

In August 1983 Kendrew was invited to chair a Task Force of the Commonwealth Science Council (CSC) on "An Expanded Programme of Scientific Co-operation in the Commonwealth". The Task Force, later called an "Expert Group", met in London in October 1983, and in April and May 1984 and its report was published in August 1984 under the title "Science for Technology for Development". The Secretary of the Group, and of the CSC, was J.I. Furtado with whom much of the correspondence is exchanged.

J.20

Notes and committee papers:

First meeting, 24-25 October 1983.

Agenda, "Tentative priority", notes of meeting, Kendrew's notes.

Second meeting, 2-5 April 1984.

Agenda, notes of meeting.

Third meeting, 28-29 May 1984.

Draft report, with some annotations by Kendrew.

J.21

Correspondence and papers August 1983 - June 1985.

Includes invitation to serve, composition of group, terms of reference, arrangements for meetings, schedule of work, costings of projects, draft report and comments by group members, presentation of report at CSC Biennial meeting, Ottawa, errata and correspondence arising.

COUNCIL FOR SCIENTIFIC POLICY (CSP)

1964-72

The Council was set up in 1965 by the Department of Education and Science (DES) as a result of the Committee of Enquiry into the Organisation of Civil Science HMSO Cmnd 2171, 1963 (the Trend Report). Its purpose was "to advise the Secretary of State for Education and Science in the exercise of his responsibilities for the formulation and execution of Government scientific policy". It originally had fourteen members drawn from the universities and industry, with assessors from the Research Councils and the University Grants Committee, and was serviced by the DES.

The CSP began its activities in January 1965, working primarily through *ad hoc* working groups and committees, some being joint or collaborative, and its two Standing Committees, on International Scientific Relations and on Human Resources in Science and Technology.

Kendrew was a member of CSP from its inception, his terms of service being periodically renewed until the work of CSP came to an end in 1972. The first Chairman was Sir Harrie Massey, succeeded from January 1970 by F.S. (later Lord) Dainton. Kendrew was Deputy Chairman from 1969, and Chairman of the Standing Committee on International Scientific Relations (ISR); he chaired or was a member of many of CSP's working groups, as itemised at J.27-J.66.

Many of the projects on which CSP was asked to advise involved international co-operation in various fields, including molecular biology. The EMBO/EMBC/EMBL organisations and proposals were thus under frequent discussion as well as being the subject of specific working groups.

COUNCIL

Appointment and membership

J.22

Correspondence and papers 1964-72, mainly with successive Secretaries of State for Education & Science, on Kendrew's appointment (1964) and renewals of service 1967, 1972, membership of CSP, information on meetings; also included are miscellaneous travel claims for meetings and overseas visits 1966-70.

Correspondence and papers on CSP affairs

- J.23 1965. Mainly corespondence and memoranda on EMBO; a little material on UGC and nuclear physics.
- J.24 1966-69. Includes material on visit of Canadian Senate Committee on Science Policy to London September 1969; CSP visit to North Africa; letter on CERN 300 GeV accelerator.
- J.25 1970. Visits and conferences.

Overseas visits

Official visits by CSP delegations of which Kendrew was a member. Includes information, notes of discussions, participants from CSP and host countries.

- J.26 Holland, 2-3 March 1967.
- Germany, 9-11 May 1967 (and also visit by Wissenschafttrat to London 24-25 April).
- Italy (proposed visit 3-4 October 1968).
- Sweden, 13-15 April 1970.
- France, 4-6 November 1970.

COMMITTEES AND WORKING GROUPS

This material relates to the committees and working groups of which Kendrew was a member or chairman, and is presented in chronological order.

Advisory Group on Fundamental Research 1965

This was set up on 23 July 1965 with D.H.R. Barton as chairman and B.H. Flowers and Kendrew as members, to consider the OECD draft report on "Fundamental research in the policy of government".

- J.27 Correspondence and papers July-August 1965. Includes copy of OECD report, comments by Science Research Council, Kendrew's comments prepared for Advisory Group.

Location of Research Councils 1965

- J.28 Papers and correspondence on economic costs in travel, man-hours etc. involved if headquarters of Research Councils were moved out of London to e.g. Manchester or Edinburgh. Correspondence is principally with M.M. Swann, whose draft report is included, with comments by Kendrew.

Biology Review 1965

The starting-point for this seems to have been a memorandum of February 1965 by M.M. Swann on "The pattern of research in Britain: the need for a synoptic view". Pilot surveys were set up by the CSP to deal with biological research in or near Edinburgh (organised by Swann) and in or near Cambridge (organised by Kendrew and N.M.V. Rothschild). Much of the material relates to the determination of categories and the organisation of the statistics. The result was published as CSP(BR)(65)1 a copy of which is retained at J.32.

- J.29 M.M. Swann's memorandum February 1965, categories proposed at Edinburgh and by CSP, CSP account of project.

- J.30 Correspondence, mainly with Rothschild, on questionnaire for Cambridge departments and on processing the results.
- J.31 Correspondence and papers on the Cambridge survey, replies to questionnaire from colleagues.
- J.32 Copy of report.

Working group on molecular biology 1965-68

Kendrew was the Chairman of the group, which was set up, after some preliminary correspondence, in April 1966 "to enquire into the present position of, and future plans for, teaching, recruitment and research in molecular biology in the United Kingdom".

The group held 14 formal meetings and considered evidence from individuals and organisations. Its report was submitted for consideration by the Council at its meeting on 9 February 1968, and published in July 1968 (HMSO Cmnd 3765).

Membership of the group was: J.L. Gowans, W. Hayes, H.L. Kornberg, A. Neuberger, M.G.P. Stoker, M.M. Swann, M.H.F. Wilkins.

Official papers

- J.33 Minutes and notes of working group meetings 26 April 1966 - 16 January 1968.
- J.34 Working group papers CSP(MB)(66)1 - CSP(MB)(68)2. Includes drafts for report, with comments and amendments by Kendrew and working group members.

General correspondence and papers

- J.35 Preliminary correspondence on setting up and membership of working group December 1965 - March 1966.

- J.36 May-August 1966. Arrangements for literature search, lists of papers published and reports of research in progress in molecular biology at various UK universities and institutions (Sheffield, Leicester, King's College London, Chester Beatty Research Institute, University College London, University Chemical Laboratory Cambridge).
- J.37 June-November 1966. Definition of "molecular biology"; developmental biology; applied biology.
- J.38 February-November 1967. Drafts, comments and notes on the problems of defining "centres of excellence" (later called "focal centres") and their possible staff.
- J.39 February 1967 - January 1968. Includes correspondence and papers from H. Himsworth.
- J.40 February 1967 - May 1968. Early drafts and comments for report, revisions, arrangements for publication (includes Kendrew's corrected proof of HMSO report).
- J.41 Press comments and correspondence arising. Includes note from J.D. Bernal ("Sage") objecting on historical grounds to use of term "biology at the molecular level" instead of "molecular biology".

Standing Committee on International Scientific Relations (ISR)

A Working Party on International Scientific Relations was set up by Council on 7 January 1966. The Chairman was Sir Harrie Massey and the members were Kendrew, P.M.S. Blackett, H.W. Thompson, D.C. Martin, J. McAdam Clark, R.I. Michaels and Sir Frank Turnbull. In a note of 16 March, the Chairman proposed a standing Working Group with a representative membership from the CSP, the Department of Education & Science, the Foreign Office, Royal Society, Science Research Council and the Ministry of Technology. Kendrew continued as a member of the Standing Committee thus formed, and was its Chairman 1970-72.

Minutes

- J.42 Setting-up papers 1966, Minutes of meetings 3-6 1967, 1-2 1968, 2-3 1970.

Background papers

Miscellaneous papers, reports etc. on all aspects of international scientific collaboration, scientific policy in UK and elsewhere, some dealing specifically with European molecular biology. Circulated by CSP to members of ISR Standing Committee.

- J.43 1966. CSP(ISR) 6, 7, 10, 14, 16, 17, 19-21.

- J.44 1967. CSP(ISR) 1-5, 7-15.

- J.45 1968. CSP(ISR) 1, 2

- J.46 1969. CSP(ISR) 1-3, 5-9.

- J.47 1970. CSP(ISR) 2-4, 12-18.

Also included here is the report of the Working Group on Scientific Interchange CSP(SI) set up by the Standing Committee in July 1969 (Kendrew was a member), not otherwise documented.

- J.48 1971. CSP(ISR) 1-12, 14, 15.

- J.49 1972. CSP(ISR) 9, 12.

CSP 36, 44.

Working Party on the Proposed European Laboratory for Molecular Biology

The Working Group was created on an initiative of Sir Harrie Massey, Chairman of CSP (J.50) and formally set up on 6 December 1968 "to consider what should be the UK attitude to the EMBO proposal for a European laboratory; and to report to the Council for Scientific Policy". The Chairman was Sir Harrie Massey and the members were J.B. Adams, J. Baddiley, J.H. Humphrey, A. Neuberger, M.G.P. Stoker and H.W. Thompson; Kendrew was an "assessor", and there were assessors from the Medical Research Council and the Science Research Council. The Working Party's report (March 1970) recommended UK participation subject to further examination of the scientific programme, costing and site, and the report was accepted by the Council at its meeting on 20 March. In December 1971 a Working Group was set up with S.L. Bragg as Chairman and J.G. Collingwood, P.B. Hirsch, R.R. Porter and M.G.P. Stoker as members "to consider the UK contribution to a European Molecular Biology Laboratory in the light of (i) the proposed scientific programme and (ii) the revised cost estimates; and to report to the CSP". Its report indicated support for the laboratory, subject to a reduction in costs and this was accepted by the Council at its meeting in January 1972. After subsequent further discussions on costings and research, the Council finally submitted to the Secretary of State in May its recommendation that the UK should take part in the establishment of the Heidelberg laboratory and its outstations at Hamburg and Grenoble.

Correspondence

- J.50 1968-71. Includes letter from Sir Harrie Massey February 1968 suggesting setting-up of Working Party, miscellaneous later correspondence 1969-71.
- J.51 Notes, correspondence and memoranda on the Bragg Working Group and meetings and decisions of CSP January-May 1972.

Minutes

- J.52 Working Party Meetings December 1968 - July 1970.

Background Papers

- J.53 1968. CSP(EB) 1-6.
- J.54 1969. CSP(EB) 1-5.
- J.55 1970. CSP(EB) 1, 3-8.

Council Minutes and Papers

- J.56 Minutes and papers March 1970 - May 1972 covering reception of Working Party report, setting up and work of Bragg Working Group, final deliberations and recommendations.

Miscellaneous

- J.57 A collection of CSP papers 1965-69 on international scientific organisations, with special reference to life sciences, biology and molecular biology, EMBO and EMBL and similar matters of special interest to Kendrew.

Working Group on research organisation ("Dainton Report")

The Working Group was set up in October 1970 under the Chairmanship of F.S. Dainton "to advise the Secretary of State, through the Council for Scientific Policy, on the most effective arrangements for organising and supporting pure and applied scientific research and postgraduate training". The other members were T.L. Cottrell, Kendrew, P.E. Kent and A.W. Merrison. The report of the Working Group was submitted in May 1971; among its recommendations were the retention of the Research Councils and the replacement of the CSP by a new advisory body responsible to the Secretary of State (now the Advisory Board for the Research Councils).

In 1971 the Government commissioned a report from Lord Rothschild, Head of the Central Policy Review Staff, on Government research and development; this was submitted in October 1971 and recommended the "application of customer-contractor principle to all applied research and development". The two reports, by Rothschild and Dainton, were published

together in November 1971 as a Green Paper "A Framework for Government Research and Development" (Cmnd.4814). In an introductory memorandum, the Government, while welcoming the recommendations of both reports, announced its intention "to allow time for wide public debate and to discuss the issues involved with the scientific community".

See Preparatory Group : Green Paper J.65, J.66.

J.58 Minutes and notes of meetings November 1970 - April 1971.

J.59 Drafts of report, some heavily revised and corrected by Kendrew and Dainton; comments and submissions by Research Councils and by individuals. Some manuscript notes by Kendrew. A copy of Cmnd.4814 is included here for reference.

Working Group on high flux neutron research

The Working Group was set up on 4 June 1971. The Chairman was A.W. Merrison and the members were P.B. Hirsch, Kendrew and R.G. West. The original terms of reference were "to examine the effect on the science budget of the proposals for high flux neutron beam research contained in the Science Research Council's Forward Look; and to report to the Council". These were later broadened (September 1971) "to consider the future provision required for high flux neutron beam research, with regard particularly to the relative costs, advantages, and implications for the future of the alternative courses of building a UK reactor or of taking a full share in the European reactor programme; and to advise the Council on these and any other relevant aspects".

After several meetings June 1971 - January 1972 the Working Group was unable to reach a consensus and confined its report to Council to the terms of its original remit on financial feasibility.

Correspondence

J.60 Correspondence and notes 1971-72 on Working Group.

J.61 Earlier correspondence with colleagues on high-flux neutron sources and neutron diffraction research 1965-70.

Minutes

J.62 Working Group meetings June 1971 - January 1972.

Background papers

J.63 Papers, submissions, drafts 1971-72.

Tripartite meetings on international science

This was a series of informal meetings between France, Germany and Britain which Kendrew attended in his capacity as Chairman of the CSP International Relations Committee. Meetings were held in July and October 1971, March and July 1972. The meetings discussed various fields of research suitable for collaborative effort; they included EMBL, the Brain and Behaviour research programme, the High Flux Reactor project at Grenoble, astronomy etc.

J.64 Correspondence, notes of meetings, background papers 1971-72.

Preparatory Group : Green Paper

Dainton and Kendrew were CSP representatives at a meeting in November 1971 to arrange for the views of Research Councils and the CSP on the Green Paper to be assembled and submitted. The Preparatory Group's terms of reference were "to advise the CSP on the formulation of views on the Green Paper (Cmnd.4814) in general and the application of the customer/contractor principle to the Research Councils in particular". Its members were F.S. Dainton (Chairman), A.H. Bunting, T.L. Cottrell, Kendrew, P.E. Kent, A.W. Merrison, M.G.P. Stoker. After meetings and submissions by the Group and the Research Councils, a meeting of representatives with the Lord Privy Seal and the Secretary of State was held in March 1972. The Government White Paper (Cmnd.5046) presented in July 1972 took note of these and many other representations and reports. Many of the Dainton Report's recommendations were accepted, including the reconstitution of the CSP to form a new advisory body.

- J.65 Minutes and notes of meetings by the Preparatory Group, the Research Councils and others, submissions and comments, evidence given by Rothschild to Select Committee on Science and Technology, meeting with Lord Privy Seal etc., some annotated by Kendrew. Includes a little correspondence and a copy of Cmnd.5046.
- J.66 Press comments, memoranda and submissions on the "Rothschild Report", some circulated officially to the Preparatory Group, others assembled by Kendrew.

DESIGN RESEARCH UNIT

1945-51

In September 1945 Kendrew was approached by J.R.M. Brumwell with a view to his acting as scientific adviser to the Design Research Unit (a design company set up by Herbert Read in which Mischa Black was a Senior Partner). He contributed ideas and reports on possible new developments and devices resulting from scientific advances. The correspondence, which runs from September 1945 to July 1951, is almost entirely conducted with Brumwell.

- J.67 1945-46. Correspondence and papers. Includes "Suggestions for future design" contributed by Kendrew for an exhibition by the Council of Industrial Design.
- J.68 December 1948 - July 1951. Mainly relating to a project on man-made fibres and fabrics for Courtaulds. Kendrew contributed a general scheme on the theme of molecular engineering and a series of 15 specific topics. (See J.69 below).
- J.69 Ideas and drafts submitted by Kendrew January-December 1949.

HIGH ENERGY PARTICLE PHYSICS REVIEW GROUP (HEPP)

1983-85

The review group was commissioned jointly by the Advisory Board for the Research Councils (ABRC) and the Science and Engineering Research Council (SERC). Kendrew was chairman of the Group, whose terms of reference were:

- "(i) to review UK participation in the study of high-energy particle physics, with particular reference to that necessarily carried out under international auspices;
- (ii) to consider possible future involvement, the role and extent of international collaboration, and the implications of reallocation of the resources in whole or in part to other areas of science."

The formation of the review group was announced by the Secretary of State for Education and Science (Sir Keith Joseph) on 22 March 1984. Two meetings of the HEPP Support Group were held on 9 April and 23 November 1984 and the Review Group itself had fifteen meetings (19 April 1984 - 14 May 1985) in various locations, and considered written submissions. The report, published in June 1985, recommended that Britain should remain a member of CERN until 1989 but subsequently only if significantly lower costs could be achieved.

The material constitutes a full record of the activities of the review group, including preliminary discussions, chairman's notes and briefings, minutes and papers of meetings, drafts and amendments of the report, submissions of evidence, correspondence with colleagues and officials throughout the period of the enquiry and following the publication of the report, press comment in UK and abroad (not all favourable) etc. Many documents bear Kendrew's notes, comments and annotations.

Correspondence and papers

A chronological sequence of letters, memoranda, submissions and material sent to Kendrew by members of the general public, scientific colleagues, members of the review group, in particular E.A. Ash (member) and C.H. Llewellyn-Smith (scientific consultant).

J.70

December 1983 - March 1984.

Early discussions, membership, terms of reference, formal announcement, foreign reactions.

- J.71 29 March - June 1984.
- J.72 July-December 1984.
- J.73 January, February 1985.
- J.74 March-November 1985.
- Includes final comments on draft report, arrangements for publication, press conference, Kendrew's address to Parliamentary and Scientific Committee, correspondence and comment arising from publication.

Meetings and visits

- J.75 HEPP Support Group meetings 9 April, 23 November 1984.
- Index of HEPP (84) papers.
 Meetings 1-3 April-June 1984.
- J.76 Fourth meeting July 1984.
- J.77 Fifth meeting September 1984.
- J.78 Visit to CERN October 1984.
- J.79 Sixth meeting October 1984.
- J.80 Seventh meeting November 1984.
- J.81 Eighth meeting December 1984.
- J.82 Index of HEPP (85) papers.
 Ninth meeting January 1985.

- J.83 Tenth meeting January 1985.
- J.84 Visit to Hamburg and Bonn January-February 1985.
- J.85 Eleventh meeting February 1985.
- J.86 Twelfth meeting March 1985.
- J.87 Thirteenth meeting April 1985.
- J.88 Fourteenth and fifteenth meetings May 1985.
- J.89 Submitted evidence on HEPP (Cambridge, Stanford Universities).

Press and broadcast comments : articles, editorials, correspondence, transcripts. Circulated periodically by Secretariat

- J.90 December 1983 - April 1984.
- J.91 July-November 1984.
- J.92 April-May 1985.
Press release, arrangements for Press conference, June 1985.
- J.93 June 1985 (post-publication comment).
- J.94 June 1985 - February 1987.

IMPERIAL CHEMICAL INDUSTRIES LTD. (ICI)

1950

- J.95 Brief correspondence etc. on drawings of cells made by Kendrew for a film strip on salt, produced for schools by ICI, 1950.

MEDICAL RESEARCH COUNCIL (MRC)

1964-82

Kendrew was a member of the MRC staff from the opening of the original "Unit for the Study of the Molecular Structure of Biological Systems" in 1947 until he retired, after secondment to EMBL, in 1982. The material here is thus only a small fraction of the work done under MRC auspices. See also sections C and D.

- J.96 Papers, correspondence, survey reports, meetings on high speed centrifuges and their applications in biological research 1964-68.

- J.97 MRC Subcommittee visit to Laboratory of Molecular Biophysics Oxford, March 1971. Arrangements, schedule, presentations, Kendrew's comments (very favourable) on the work of the laboratory.

- J.98 Letter following MRC Subcommittee visit to EMBL in February 1979, with comments on research programme and progress, May 1979. See also H.288.

Letter from Secretary (J.L. Gowans) on Kendrew's retirement from MRC staff, April 1982.

MINISTRY OF DEFENCE

1960-74

In April 1960 Kendrew was asked by S. Zuckerman, then Chief Scientific Adviser to the Minister, to accept a post as part-time Scientific Adviser for two days a week, and after various negotiations this was agreed in April 1961. In 1963 he resigned the appointment in order to devote more time to his scientific research, while continuing to serve as an independent member on panels and committees such as the Defence Research Committee.

Throughout this period Kendrew remained a member of staff of the Medical Research Council and was therefore deemed by the Treasury to be in government employment and hence not eligible for fees (other than expenses) for his work for the Ministry even though the latter was unconnected with his scientific specialism. Kendrew felt that this created a situation not only anomalous but inequitable vis-à-vis University colleagues involved in similar work, and attempted to argue the case, but without success, the Treasury decision being termed by a colleague in the Ministry "a deplorable piece of jiggery-pokery" (J.100).

- J.99 1960-61. Correspondence including Kendrew's appointment, negotiations with Ministry and MRC.
1963. Correspondence including Kendrew's decision to resign his part-time appointment with effect from 31 December.
- J.100 1964-65. Correspondence on Kendrew's eligibility for fees for his work for the Ministry.
- Included here are Kendrew's notes of meetings and travel for the Ministry 1960-67 (compiled for expenses).
- J.101 General correspondence, arrangements for meetings, Defence Research Committee etc. 1964-68.
- J.102 Correspondence and suggestions about European scientific advances suitable for inclusion in a "Time Capsule" 1964-65.
- J.103 General correspondence, including Kendrew's appointment to Defence Advisory Council and Chairmanship of its Undersea Warfare Board (March 1969), various committee and Board meetings 1969-72, letter of thanks at end of Chairmanship of Council 1974.

MINISTRY OF OVERSEAS DEVELOPMENT

1976-84

United Kingdom National Commission for UNESCO

The functions of the Commission were to advise the Government on all aspects of UNESCO's work, to assist UNESCO in formulation, planning and execution of projects and to promote understanding in the UK of UNESCO's aims and activities. It had five Advisory Committees, dealing with communication, culture, education, natural sciences and social sciences; their chairmen, together with the Commission's *ex-officio* members, formed the Co-ordinating Council. The chairmen were appointed by the Minister for Overseas Development, chairman of the Commission.

Kendrew attended meetings of the Commission in his capacity as chairman of the Royal Society UNESCO Committee (q.v.). He was chairman of the Natural Sciences Advisory Committee and hence of the Co-ordinating Council.

The material includes correspondence and papers on the organisation and structure of the Commission, briefings for or accounts of meetings and the biennial General Conference, UK applications for funding under the "Participation Programme" of UNESCO, and aspects of UK policy towards UNESCO.

- | | |
|-------|---|
| J.104 | 1976. |
| J.105 | 1977. |
| J.106 | 1978. Includes renewal of Kendrew's appointments. |
| J.107 | 1979. |
| J.108 | 1980, 1981. |
| J.109 | 1982. |
| J.110 | 1983. |

J.111 1984. Includes material on UK policy towards UNESCO, and letter of thanks on Kendrew's retirement from Commission.

QUEEN ELIZABETH HOUSE OXFORD (QEH)

1982-86

Queen Elizabeth House was an independent foundation established by Royal Charter in 1951 to encourage Commonwealth studies and visits by members of the Commonwealth, and to provide links with the University of Oxford, members of the Governing Body being appointed by Her Majesty's Government and by the university. In 1983 the Overseas Development Administration announced its intention to withdraw its financial support after March 1984, and various possibilities were discussed for the future activities and funding of QEH. A committee was set up by the university in March 1983 at the request of the Governing Body to consider the future of QEH and an agreed plan was evolved to merge QEH with the two University Institutes of Agricultural Economics and Commonwealth Studies to create a centre for development and international studies and agricultural economics.

Kendrew was co-opted as a member of the Governing Body of QEH in December 1982, his appointment being renewed in June 1986 until July 1987 when he retired as President of St. John's. At this time the President of the Governing Body was Lord Trend (later succeeded by Sir Zelman Cowen) and the Warden of QEH was A. Hazlewood. The early period of Kendrew's service coincided with the difficult transitional phase in QEH's affairs. He chaired a Working Party set up by the Governing Body in November 1983 to conduct a financial review and make suggestions for future activities in the light of the proposed merger.

The material includes letters and memoranda addressed to Kendrew personally, and relevant committee and discussion papers. Other committee and background papers are held in the Archives of the University.

J.112 December 1982 - June 1983.

J.113 July 1983 - February 1984.

- J.114 Reports January, February 1984.
- J.115 February-June 1984.
- J.116 October 1984 - June 1986. Including material on participation
of United Nations University in Refugee Studies Programme at
QEH.

ROYAL INSTITUTION

1954-68

Kendrew was a Reader at the Davy Faraday Research Laboratory 1954-68. At this time the Fullerian Professor of Chemistry and Director of the Royal Institution was Sir Lawrence Bragg who had been Cavendish Professor of Experimental Physics at Cambridge 1938-53 and thus head of the Cavendish Laboratory during the early years of molecular research there including the work on DNA by Watson and Crick, and the start of the MRC Unit and the protein analysis by Perutz and Kendrew.

On his move to London, Bragg was much concerned to launch a productive research programme at the Davy Faraday Laboratory and made strenuous efforts during 1954 and 1955 to persuade Kendrew to move there, preferably full-time, to head a protein group. He made several approaches to Kendrew and also to MRC. Kendrew, however, preferred to remain based in Cambridge as an MRC staff member, and maintaining his college connection. Instead he accepted a Readership and conducted a close collaborative research programme on protein analysis (in which Bragg as a crystallographer had a particular interest), principally with D.C. Phillips and his team. There was frequent interchange of visits, specimens, data and results between the London and Cambridge laboratories, culminating in joint publications. The correspondence on research projects and progress preserved here should be consulted in conjunction with the much fuller complementary documentation in Section C.

- J.117 Correspondence with Bragg and with MRC on Kendrew's possible appointment at Royal Institution May 1954 - March 1955. Includes his formal appointment as Reader (letter of 22 July 1954).
- Also included here are miscellaneous notes of visits and expenses, and renewals of appointment 1954-68.
- J.118 Correspondence, principally with Bragg, on research projects and appointments (including that of D.C. Phillips) 1954-58.
- J.119 Correspondence 1958-59. Includes note by Phillips of equipment and staffing requirements, note on protein analysis research submitted to United States National Institutes of Health, letter of thanks (10 February 1959) from H. Spencer Jones to Kendrew for his help in obtaining research grant from NIH for the Institution (Kendrew's reply refers to the results achieved by the collaborative work), other possible X-ray analysis projects etc.

- J.120 Correspondence 1960-65, on research projects and appointments. Includes 3pp. notes by Bragg on "The determination of the atomic structure of biological molecules by X-ray analysis", with a manuscript headnote by Kendrew "Notes of a lecture to be delivered by W.L. Bragg at Lindau, 1965 (never given!)".
- J.121 Correspondence 1954-66 with H. Scouloudi on various aspects of research and publications on seal myoglobin.
- J.122 Correspondence 1959, 1961 on β -lactoglobulin.
- J.123 Correspondence 1963-65 with Phillips on his successful research on lysozyme and on his move from the Institution to Oxford to set up the Laboratory of Molecular Biophysics.

ROYAL SOCIETY

1949-1986

Kendrew was elected to the Fellowship of the Society in 1960 and served on its Council 1965-67. He served on many of its committees and sub-committees both before and after his election; these are presented in chronological order.

COMMITTEES AND SUB-COMMITTEES

Classification Sub-committee

This was a sub-committee of the Royal Society Information Services Committee and was set up in May 1949 "to formulate what scientists really require of a classification".

Kendrew served from the inception of the sub-committee; the chairman was J.D. Bernal.

Meetings were held in June 1949 and an interim report was prepared in October; a further meeting was held in March 1950 and a report by Bernal was presented to the Information Services Committee in October. Later discussions led to the formation of a Classification Research Group in 1952 whose first Bulletin (ed. B.C. Vickery) appeared in November 1956, drawing on some of the papers of the Classification Sub-committee.

- J.124 Correspondence and papers 1949-56. Includes invitation to serve, Kendrew's paper contributed to the discussion, brief correspondence on other papers and contributions, final report, copy of Research Group Bulletin.

Sub-committee on Research into the use of Scientific Literature

This was a sub-committee of the Royal Society Information Services Committee and was set up in January 1950 "to advise on the form of a questionnaire to be sent to scientists and on the conduct of the enquiry".

Kendrew served from the inception of the sub-committee; the chairman was D.J. Urquhart (Department of Scientific and Industrial Research).

Meetings were held on 28 February, 9 June 1950 and 19 June 1951, when "it was agreed that there was no action which the Subcommittee could take at the present time".

- J.125 Correspondence and papers 1950-51. Includes invitation to serve, draft questionnaire, brief correspondence, DSIR bulletin on "Unanswered Questions".

Ad hoc Biological Research Committee

The committee was set up in November 1960 "to report to Council on possible developments in research in the United Kingdom in biology and related (borderline) fields". Kendrew served on the committee from its inception.

The committee held seven meetings in the course of 1961 and presented its report on 23 November.

- J.126 Correspondence and papers 1960-61. Includes invitation to serve, Kendrew's notes on papers prepared for committee, copy of his letter to H.W. Florey (President) on current developments in biological research in USA.

British National Committee for Biophysics

At an International Biophysics Conference held in Cambridge in July 1959, plans were made for an International Congress on Pure and Applied Biophysics to be held in Stockholm 30 July - 5 August 1961 under the Presidency of Sir Gordon Sutherland. The General Assembly at the Stockholm meeting approved Statutes for an International Organisation for Pure and Applied Biophysics which required that in each member country "a National Committee on Biophysics shall be formed".

The Provisional British National Committee was set up by the Royal Society in June 1962, Kendrew being one of the four members representing the British Biophysical Society (J.13, J.14); he was also appointed a member of the Special Commission on Molecular Biophysics at the meeting of the International Organisation in Vienna in April 1962. The Provisional Committee met at the Royal Society on 6 July 1962 under the Chairmanship of A.V. Hill and resolved to apply "for adherence on behalf of the United Kingdom to the International Organisation for Pure and Applied Biophysics"; the application was formally approved by the Council of IOPAB in November 1963.

At the Second General Assembly of IOPAB in Paris in June 1964 Kendrew was elected Vice-President and served in that capacity on the Provisional British National Committee from June 1964. The Assembly also decided to apply for membership of ICSU and this was approved at the ICSU General Assembly in Bombay in January 1966; henceforth the International Organisation was known as the International Union of Pure and Applied Biophysics (IUPAB) (K.46-K.52) and the Provisional British National Committee was established as the British National Committee for Biophysics.

In December 1966 the Council of the Royal Society appointed Kendrew as a representative to serve on the British National Committee and to be its Chairman for six years from 1 January 1967; the first meeting of the Committee under his chairmanship was on 25 November 1968.

Kendrew was elected President of IUPAB at the General Assembly at Boston in August 1969, and became Honorary Vice-President 1972-75. He was succeeded as Chairman of the British National Committee from 1 January 1973 by D.C. Phillips but remained an *ex officio* member as Honorary Vice-President of IUPAB until 1975.

The material is presented as a chronological sequence and includes only those matters in which Kendrew was especially involved.

- J.127 1962. Background papers and minutes of first meeting of Provisional British National Committee.
- J.128 1963. Correspondence and papers re UK participants in IOPAB Symposium on Macromolecules; draft constitution of IOPAB Commission on Molecular Biophysics etc.
- J.129 1965-67. Travel grants; Kendrew's letter of appointment 16 December 1966 as Royal Society representative and Chairman of Committee, and *ex officio* member of British National Committee for International Council of Scientific Unions; meetings and symposia; nominations to IUPAB Committee on Education.
- J.130 1968. *Quarterly Reviews of Biophysics* (journal published for IUPAB by Cambridge University Press; Kendrew served on the Editorial Board); paper by N.W. Pirie on "Biochemical Research in the International Biological Program"; travel grants; draft and agreed agenda and minutes of Committee meeting 25 November; memorandum by A.R. Peacocke on "Physical Biochemistry in the United Kingdom".

- J.131 1969. Travel grants, delegates etc. at IUPAB International Congress at Boston, Mass; membership of Committee.
- J.132 1970. European Biophysics Congress, Vienna; possibility of holding 1975 International Congress in UK; draft agenda for Committee meeting 17 November.
- J.133 1971. Continuing (unsuccessful) attempts to arrange 1975 Congress in UK; membership of Committee; travel grants for 1972 Congress in Moscow.
- J.134 1972-74. Elections to IUPAB; continuing arrangements for Moscow Congress and report of UK Delegation; draft minutes of Committee meeting 29 February; Royal Society representatives and new Chairman for Committee, letters of thanks for Kendrew's service on Biophysics and ICSU Committees.

Also included are minutes of meetings on 29 November 1973, 17 October 1974 to both of which Kendrew made extensive contributions.

Soirée Committee

Kendrew served for five years from 1 January 1966.

- J.135 Correspondence and papers 1965-71. Includes invitation to serve, correspondence with colleagues inviting suggestions or making arrangements for exhibits, Kendrew's letter of resignation (January 1971), letter of thanks for service.

Ad hoc Committee "to consider the Society's relations with the Academia Sinica".

Kendrew was invited to serve in April 1966 and attended the second meeting on 29th April (the first meeting was held on 5 February 1965).

- J.136 Letter of invitation only.

International Relations Committee including European Programme Fellowships
Sub-committee

The Committee was set up "to advise Council on general policy in international relations". The Chairman was the Foreign Secretary, Royal Society (until 1971 Sir Harold Thompson, succeeded by Sir Kingsley Dunham (to 1976) and Sir Michael Stoker). Kendrew was a member throughout the existence of the Committee, which met for the first time on 30 March 1966 and was dissolved in November 1979 following a decision by Council that matters of general policy in international relations should be considered directly by itself.

In January 1967 a sub-committee was set up to consider applications for fellowships under the Royal Society European Programme. Kendrew served on the sub-committee until August 1975 when he resigned and was replaced by D.C. Phillips.

At the first meeting of the Committee in March 1966, the sixth agenda item was "International Co-operation in the Basic Biological Sciences", when Kendrew circulated and spoke to a policy statement by the Council of EMBO; the development and affairs of EMBO were the main purpose of the second meeting on 21 June and continued to be regularly discussed by the Committee.

The material comprises papers and a little correspondence covering the whole period of the Committee.

- J.137 1966. Setting-up papers, meetings 30 March, 21 June.
- J.138 1967. Meetings 27 January, 22 June, 18 December.
- J.139 1968. Meetings 1 March, 9 December.
- J.140 1969-70. Meeting 17 November.
- J.141 1972. Meetings 20 July, 1 September.
- J.142 1973. Meeting 10 September.
- J.143 1974. Meetings 11 January, 7 May

J.144 1975. Meetings 5 February, 4 August.

J.145 1976. Meeting 10 March.

J.146 1977. Meeting 13 May.

J.147 1978. Meeting 12 June.

Included here is letter 28 November 1979 from Executive Secretary, on Council's decision to dissolve the Committee.

UNESCO Committee (from 1983 Natural Sciences Advisory Committee)

This was a joint committee with the Overseas Development Administration. (See J.104-J.111) Kendrew sat as a government nominee during the existence of the Council for Scientific Policy and when this was wound up in 1972 he was nominated as one of the Society's representatives. From 1 April 1976 to 31 March 1984 he served as Chairman in succession to Sir Harold Thompson.

The material includes correspondence on Kendrew's appointments and their periodic renewals, membership of the committee, recommendations for prizes (in particular the Kalinga Prize), agendas and minutes of meetings and, from 1976, chairman's briefings and notes and the relevant background or discussion papers.

J.148 1971-72. Membership list; meetings 8 February, 19 May, 27 September; Kendrew's nomination as Royal Society representative (December).

J.149 1973. Meetings 12 January, 10 April, 10 September; setting up, draft charter etc. of United Nations University (q.v.).

J.150 1974. Meetings 11 January, 9 May.

J.151 1975. Meetings 8 January, 26 August, renewal of Kendrew's appointment and request to serve as Chairman from 1 April 1976 (July).

- J.152 1976. Meetings 16 January, 9 April, 24 June, 17 September.
Kendrew chaired meetings from 9 April.
- J.153 1977. Meetings 8 February, 23 May.
- J.154 1978. Meeting 3 March.
- J.155 1978. Meeting 19 May.
- J.156 1978. Meeting 6 October.
- J.157 1978. 20th General Conference of UNESCO, Paris, October.
- J.158 1978. Correspondence.
- J.159 1979. Meeting 26 March.
- J.160 1980. Renewal of appointment, meeting 14 March.
- J.161 1980. Meetings 16 April, 28 August.
- J.162 1981. Meetings 6 February, 12 June, 4 September.
- J.163 1982. Meetings 4 May, 5 November.
- J.164 1983. Meetings 17 January, 15 September.
- J.165 1984. Includes minutes of first meeting of the committee, then
called "British Committee for Co-operation with UNESCO in the
Natural Sciences", held at Royal Society 27 June 1947 and circu-
lated for interest for the 50th meeting of the Committee on 6
September 1984.

British National Committee for ICSU

J.166 Minutes, memoranda, correspondence, nominations etc. 1975-86.

COUNCIL

Kendrew served on Council 1965-67.

J.167 Notification of election, miscellaneous correspondence on the affairs of the Society: finance, awards and medals, appointments.

SECTIONAL COMMITTEE 8

Kendrew attended meetings of the Sectional Committee as a member of Council from December 1965, and was elected to serve on the Committee for three years from 1 August 1967.

J.168 Correspondence, papers and notes 1965-70, mainly on representative membership of the Committee and its nominations for election to Fellowship.

ELECTIONS

J.169	1969	J.173	1979
J.170	1970	J.174	1980
J.171	1972	J.175	1982
J.172	1976	J.176	Undated manuscript notes on candidates.

SECTION K INTERNATIONAL SOCIETIES, ORGANISATIONS, CONSULTANCIES K.1-K.119

- K.1 ASIAN MOLECULAR BIOLOGY ORGANISATION (AMBO)
- K.2-K.11 BASEL INSTITUTE FOR IMMUNOLOGY
- K.12 EIDGENOSSISCHE TECHNISCHE HOCHSCHULE, ZURICH
- K.13 EUROPEAN COMMUNITIES COMMISSION
- K.14 EUROPEAN RESEARCH AND DEVELOPMENT COMMITTEE (CERD)
- K.15 FRENCH ACADEMY OF SCIENCES
- K.16-K.39 INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS (ICSU)
- K. 40 INTERNATIONAL FOUNDATION FOR SCIENCE (IFS)
- K.41 INTERNATIONAL INSTITUTE OF CELLULAR AND MOLECULAR PATHOLOGY (ICP)

- K.42-K.45 INTERNATIONAL UNION OF BIOCHEMISTRY (IUB)
- K.46-K.52 INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS (IUPAB)
- K.53-K.64 LABORATORIO DI EMBRIOLOGIA MOLECOLARE, NAPLES
- K.65 MAX-PLANCK-GESELLSCHAFT
- K.66-K.80 NATIONAL ACADEMY OF SCIENCES (NAS)
- K.81 NATIONAL SCIENTIFIC RESEARCH CENTER, IRAN
- K.82 NORTH ATLANTIC TREATY ORGANISATION (NATO)
- K.83 STAZIONE ZOOLOGICA, NAPLES
- K.84 UNESCO
- K.85 UNION INTERNATIONALE CONTRE LE CANCER (UICC)

K.86-K.97 UNITED NATIONS UNIVERSITY (UNU)

K.98, K.99 UNIVERSITE LIBRE DE BRUXELLES

K.100-K.117 WEIZMANN INSTITUTE OF SCIENCE and WEIZMANN INSTITUTE FOUNDATION

K.118, K.119 WORLD HEALTH ORGANIZATION (WHO)

ASIAN MOLECULAR BIOLOGY ORGANISATION (AMBO)

1979-80

- K.1 Correspondence and memoranda 1979-80 re proposal to found AMBO and Asian Molecular Biology Laboratories (AMBL) on similar lines to EMBO and EMBL. The proposal was initiated by S. Akabori and I. Watanabe (Japan) and a discussion meeting, conducted by Akabori and J.D. Watson, was held in Tokyo in 1980; the project did not develop further.

BASEL INSTITUTE FOR IMMUNOLOGY

1974-86

The Institute, founded and supported by F. Hermann-La Roche & Co., was completed in 1971, its purpose being "to conduct basic research related to immunology, particularly with regard to fundamental problems of antibody formation and antibody action at the molecular, cellular, and genetic levels". It had permanent and visiting members, a Swiss board of consultants, and an "Advisory Board of outside scientists" which met annually to review its work. Kendrew was invited to join the Advisory Board, initially for three years, in August 1974 by the then Director, N.K. Jerne. In September 1980 he was invited to become a member of the Institute's newly-composed Board of Directors and its Scientific Council, retiring by rotation in 1985.

The material includes agenda and minutes of meetings, schedules of seminars and workshops, correspondence on staffing, principles of appointment and tenure at the Institute, membership of the Advisory Board etc. and Kendrew's manuscript notes of discussions. The correspondence is conducted with the Directors and staff of the Institute, members of the Advisory Board and other scientific colleagues.

- K.2 1974-75

- K.3 1976

- K.4 1977
- K.5 1978-79
- K.6 1980. Constitution of Scientific Council, with drafts of by-laws amended and revised by Kendrew.
- K.7 1981
- K.8 1982
- K.9 1983
- K.10 1984
- K.11 1985-86. Includes correspondence with Director, F. Melchers, on academic freedom.

EIDGENOSSISCHE TECHNISCHE HOCHSCHULE (ETH) ZURICH

1975

- K.12 Correspondence and papers re meeting held 9 July 1975 to discuss research and organisation of molecular biology at ETH. Includes summary of questions discussed and of advisers' replies and recommendations.

EUROPEAN COMMUNITIES COMMISSION

1972

Meeting on "European Policy for Science and Technology", Brussels, March 1972. The meeting was relatively small, with 22 participants attending in an individual capacity. The Commission's document "Objectives and Instruments of a Common Policy for Scientific and Technological Development" (COM(72)700) was submitted to the Council of Ministers in July 1972 for discussion at the Paris Summit Meeting in October. Subsequent to the meeting, the European Research and Development Committee (CERD) was set up. See K.14.

K.13

Material includes invitation to attend, schedule and list of participants, preliminary and final version of proposals, background memoranda.

EUROPEAN RESEARCH AND DEVELOPMENT COMMITTEE (CERD)

1973-76

The Committee was set up after a meeting of heads of state of the European Community in Paris in October 1972, to advise the Commission on the identification, formulation and execution of R & D programmes in the community. There were 21 members, appointed to serve for 3 years, and "in their personal capacity". Kendrew was a member from the inception of the Committee, representing the life sciences in the "balance of disciplines". He resigned after his first three-year period of service on the Committee, whose meetings he had not always been able to attend.

K.14

Correspondence 1973-76, mainly about meetings and discussions. Kendrew's letter of 24 September 1973 to H.B.G. Casimir gives his views on the purposes and problems of CERD. Papers of the inaugural meeting 4 April 1973 have also been retained.

FRENCH ACADEMY OF SCIENCES

1979-80

K.15

Brief correspondence and papers on Kendrew's membership of International Comité d'Honneur for presentation of Academician's Sword to B. Pullman.

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS (ICSU)

1974-88

This was one of Kendrew's most important commitments. The high offices he held in the organisation over a considerable period of time kept him in touch with international science at a political as well as a research level, supplemented by extensive travel and first-hand knowledge of projects and personalities worldwide, and by his representative presence as adviser, governor, trustee etc. of many other institutions.

Kendrew was Secretary-General of ICSU 1974-80 and was elected its First Vice-President in September 1982. In October 1983 he became President a year earlier than expected on the resignation of D.A. Bekoe who had accepted the post of Director of the UNESCO Regional Office for Science and Technology in Africa.

As Secretary-General Kendrew attended the biennial General Assemblies and the regular meetings of the Executive Board and Standing Committees, and also undertook special commissions or journeys on behalf of ICSU.

The Secretariat of ICSU is currently based in Paris (Boulevard de Montmorency) where its records are retained. The material preserved here relates only to those projects or activities with which Kendrew was especially involved, and includes manuscript material, correspondence or notes additional to the official records.

The material is presented as follows:

COMMITTEES AND ACTIVITIES 1974-84	K.16-K.24
MEETINGS 1974-88	K.25-K.35A
MISCELLANEOUS CORRESPONDENCE 1980-85	K.36-K.39

COMMITTEES AND ACTIVITIES 1974-84

Committee on the Safeguard of the Pursuit of Science

- K.16 Papers and correspondence 1977-84 on composition, policy, meetings, reports of Committee, cases reported etc.

Committee on Structure and Statutes

This began with an Ad hoc Group on the Structure of ICSU which first met on 18 February 1979 (Kendrew was elected Chairman). In November 1980 the ICSU Executive Board amalgamated two Ad hoc Groups to form a Structure and Statutes Group of which Kendrew became a member; this met for the first time in September 1981. At its meeting in January 1983 it was referred to as the Ad hoc Committee on Structure and Statutes; its meeting of 6 May 1983 was held at St. John's College Oxford. The revised version of the Statutes and Rules of Procedures was presented to the ICSU General Assembly in September 1984.

The material includes correspondence, questionnaires, memoranda, drafts and reports, manuscript notes by Kendrew 1978-84.

For some material relating to ICSU membership of China and Taiwan, which was one of the concerns of the Committee, see K.21-K.23.

- K.17 1978-79.
- K.18 1980 January-September.
- K.19 1980 November - 1982.
- K.20 1983-84.

China and Taiwan

The admission of scientists from the People's Republic of China into membership of the "ICSU family" of constituent Unions, and of China as a national member of ICSU, was a source of prolonged difficulties arising from the position of Taiwan and the attendant political and diplomatic consequences. Some of the Scientific Unions devised solutions for Chinese representation in their membership, a draft resolution was presented to the ICSU General Assembly in 1980, and the Committee on Structure and Statutes considered the problem at several of its meetings. The ICSU Handbook 1988 lists under "National members" both the China Association for Science and Technology Beijing and The Academy of Science located in Taipei Taiwan.

The material is Kendrew's notes and correspondence 1975-83 and is of interest as an addition to the official record.

- K.21 Notes and correspondence 1975-79: on Royal Society and ICSU committee meetings May-September 1975 on Union and individual views on China; on admission of China to International Union of Geodesy and Geophysics (IUGG) 1977; on representation of China in International Union of Biochemistry (IUB) 1979.
- K.22 Manuscript notes, papers and correspondence 1979-80, on forms of words, nomenclature etc. on China and Taiwan, for resolutions to be presented to ICSU Executive Board (January 1980) and General Assembly in Amsterdam September 1980.
- K.23 Manuscript notes, papers and correspondence 1982-83 on discussions with scientists from China and Taiwan, meeting of Structure and Statutes Committee, proposed visit to China by Kendrew and L. Ernster (then Secretary-General, ICSU).

ICSU Press

- K.24 General correspondence on publications and projects, mainly with W.J. Whelan (Chairman, Board of Management, ICSU Press) 1984-85. Includes some correspondence on *BioEssays*, an ICSU Press journal edited by Whelan for the first issue of which Kendrew wrote an editorial.

MEETINGS 1974-80

Miscellaneous material of administrative or personal interest, including annotated agenda, draft resolutions, Kendrew's manuscript notes of discussions, correspondence etc. The problem of China and Taiwan often features.

1974 General Assembly (Istanbul)

- K.25 Annotated agenda, papers on China/Taiwan, Kendrew's manuscript notes on General Assembly and on Executive Board, correspondence.

1975 Executive Board (Paris)

- K.26 Kendrew's manuscript notes, mainly on proposed appointment of Scientific Director.

1976 General Assembly (Washington)

- K.27 Invitations, correspondence with delegates and representatives, travel arrangements and accommodation.
- K.28 Proposals for agenda items, nominations for committee membership, speakers and rapporteurs.
- K.29 Agenda, annotated agenda, draft resolutions (on China and Taiwan), manuscript draft of Kendrew's speech at meeting, letters of thanks.

1977 Committee meetings (Paris, Budapest)

- K.30 Correspondence and papers.

1978 General Assembly (Athens)

K.31 Agenda, draft report, Kendrew's detailed manuscript notes (38pp.) on meeting.

K.32 Correspondence arising.

1979 Executive Board meetings (Brussels)

K.33 Draft reports, correspondence.

1980 Executive Board meeting (Paris)

K.34 Correspondence, mainly with W.J. Whelan on ICSU organisation.

1980 Extraordinary General Assembly (Amsterdam)

K.35 Correspondence and papers. The main items for the meeting were the report of the Ad hoc Group on Statutes, and the resolution concerning the adhesion of Chinese scientists.

1988 General Assembly (Beijing)

K.35A Copy of Kendrew's Presidential Address at Opening Ceremony in the Great Hall of the People. This was the first major ICSU meeting to take place in China since it became a member.

MISCELLANEOUS CORRESPONDENCE 1980-85

The notes below give some indication of content but are not intended as a calendar of the material.

- K.36 1980. Invitation to Kendrew to serve as President of International Union of Crystallography; affairs of COSTED (Committee on Science and Technology in Developing Countries).
1981. COGENE (Scientific Committee on Genetic Experimentation) Symposium, Rome.
- K.37 1983. Science Council of Singapore; Kendrew's election to Presidency of ICSU on resignation of D.A. Bekoe; ICSU Yearbook.
- K.38 1984. COSTED; World Climate Research Programme; letters of congratulation; Science Council of Japan; Inaugural Meeting, Commission on Environment.
- K.39 1985. Funding of Fellowship Programme; Kendrew's appointment as ICSU liaison officer with EEC, OECD, CTS, United Nations University; death of Y. Nayudamma; Ringberg meeting on future policies for ICSU.

INTERNATIONAL FOUNDATION FOR SCIENCE (IFS)

1975-80

The IFS was created in May 1972 by scientific academies and research councils, with an interim Board of Trustees and the aim of supporting scientific research in biology applied to the production of food and other commodities to improve the health and nutrition of people in developing countries. The secretariat was in Stockholm, and the first 45 research grants were made in 1974 funded by several international nongovernmental sources. At the first General Assembly (Stockholm, 23-25 September 1975) Kendrew was elected to the Board of Trustees as ICSU representative for the period January 1976 - December 1978. His successor as ICSU representative was T.F. Malone. In 1978 the UK became a member of IFS, represented by the Royal Society.

K.40

Papers and correspondence 1975-80, on Kendrew's election to Board of Trustees, meetings attended, and a little background information on activities of IFS.

INTERNATIONAL INSTITUTE OF CELLULAR AND MOLECULAR PATHOLOGY (ICP)

1973-80

The Institute was created in 1973 and officially inaugurated in Brussels in April 1975; the Director was C. de Duve. Kendrew was invited to join the Scientific Board (later Scientific Council) in December 1973 and served until 1979 when he became an "honorary member".

K.41

Papers and correspondence 1973-80. Includes invitation to join ICP Scientific Council, arrangements for meetings, nominations to Council, staff appointments, symposia and lectures, reports of Council, Kendrew's manuscript notes on work in progress 1977, 1978, special meeting for Kendrew, F. Gros and W. Fiers to inspect Pathogen Laboratory and discuss microbiology and rDNA work at ICP, February 1980 and correspondence arising.

INTERNATIONAL UNION OF BIOCHEMISTRY (IUB)

1963-79

Standing Committee on International Symposia

The Committee was set up by the Bureau of IUB to advise on symposia meeting under the auspices of, or proposed for sponsorship by the Union. Kendrew was invited to serve from the inception of the Committee; the other members were F. Lynen, J. Monod, G. Schramm and H. Theorell.

- K.42 Correspondence, on themes, dates, frequency, level of participation etc. of proposed symposia, conducted 1963-69 with P. Handler, Chairman of the Committee until 1969 when he resigned on his election to the Presidency of the US National Academy of Sciences.

Commission on Biological Nomenclature (CBN)

This was a joint commission with the International Union of Pure and Applied Chemistry (IUPAC), which set up several sub-commissions to prepare documents on specific topics.

The Subcommittee on the Conformation of Polypeptide Chains was set up in 1966, with Kendrew as Chairman; at a meeting of CBN at Woods Hole in 1969, when the draft document was discussed and approved for publication, two further subcommissions were formed to produce analogous documents on the conformation of polynucleotides and polysaccharides. Kendrew was asked to chair these also, but resigned in April 1971 because of pressure of other commitments, his successors being R.H. Marchessault (polysaccharides) and F. Cramer later G.N. Ramachandran (polynucleotides).

The material includes, as well as correspondence, extensive drafts, comments and revisions, necessitated not only by the international membership of the subcommissions which made meetings rare, but also by the highly technical nature of the assignment, requiring great accuracy and fine detail and making an agreed version extremely difficult to achieve.

K.43 Polypeptide Conformation

Correspondence 1965-75 with officers of CBN, members of Subcommittee and colleagues on drafts, amendments and publication arrangements for the proposed, and for the eventual document which appeared as "Abbreviations and Symbols for the Description of the Conformation of Polypeptide Chains" in *J. molec.Biol.*, *Biochim.Biophys.Acta.*, *Biochemistry*, *Arch Biochem. Biophys.* Also included is brief correspondence 1964, with M.F. Perutz, on protein sub-unit nomenclature.

K.44 Polynucleotides

Kendrew's manuscript notes, correspondence September 1969 - May 1974 on organisation, members and consultants (of both polynucleotides and polysaccharides subcommittees), Kendrew's letter of resignation 27 April 1971, continuing correspondence and drafts to 1974 and 1978-79.

K.45 Polysaccharides

Brief manuscript notes by Kendrew, correspondence September 1969 - August 1975 on organisation, membership and consultants of subcommittee, drafts and comments.

INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS (IUPAB)

1964-74

See also: BRITISH BIOPHYSICAL SOCIETY J.13-.J.14

BRITISH NATIONAL COMMITTEE FOR
BIOPHYSICS (under ROYAL SOCIETY) J.127-J.134

Kendrew was involved from the earliest stages with the movement to create IUPAB. He served on its Commission on Molecular Biophysics from April 1962, and was Vice-President 1964-69, President 1969-72 and Honorary Vice-President 1972-75.

Most of the material presented here concerns the IUPAB Symposium organised by the IUPAB Molecular Biophysics Commission in Cambridge 1968 (Kendrew was Chairman of the Organising Committee), but a little historical material at K.46 documents some of the early meetings of the International Organisation for Pure and Applied Biophysics (IOPAB) and its application for membership of ICSU and full international union status. See especially J.127 for a historical note on the foundation of IUPAB.

K.46 Historical material: miscellaneous committee papers and memoranda, some annotated by Kendrew, relating to IOPAB Second General Assembly Paris 1964, recommendations for IOPAB commissions, application for admission to ICSU etc. 1964-66. Also included is "A short history of the foundation of the International Union for Pure and Applied Biophysics" by A.K. Solomon (Secretary-General IUPAB), *Quarterly Review of Biophysics*, 1, 1968.

K.47 Brief correspondence about IOPAB Executive Committee meeting and Second International Biophysics Congress Vienna 1966.

Symposium at Cambridge 1968

The Symposium, on "Interactions between Subunits of Biological Macromolecules", was organised by the IUPAB Commission on Molecular Biophysics and held 24-27 July. Kendrew was Chairman of the Organising Committee, the other members being H.E. Huxley, J.A.V. Butler, A. Klug, R. Markham and the Secretary was K.C. Holmes.

- K.48 Correspondence with IUPAB officials and colleagues on organisation, funding and preliminary programme, invitations to chair sessions, meetings to be held during symposium, February-November 1967.
- K.49 Invitations, accommodation, arrangements for Council etc. December 1967 - August 1968.
- K.50 Finance: draft budget, grants from IUPAB and Royal Society, final account.
- K.51 Organisation: notes of IUPAB and committee decisions, circulars and forms, information, final programme, abstracts of papers.

Later material

- K.52 Minutes of IUPAB Executive Committee (annotated by Kendrew), correspondence on science policy, 1974.

LABORATORIO DI EMBRIOLOGIA MOLECOLARE, NAPLES

1973-82

In June 1973 Kendrew was invited by the Consiglio Nazionale delle Ricerche (CNR) of Italy to serve as EMBO representative "esperto" on the Scientific Advisory Committee of the Laboratory in succession to E. Hadorn. At the first meeting he attended (26 November 1973) Kendrew was elected President of the Committee. The term of office was four years, which was renewed in February 1978; he was asked to continue in May 1981 but left the Committee at the end of 1981 when new Statutes came into operation for the Laboratory.

The Director of the Laboratory was A. Monroy until 1976 when he was appointed Director of the Stazione Zoologica, Naples (q.v.); his successor, from May 1977, was E. Scarano.

The correspondence and papers relate to meetings of the Committee, appointments, space allocation, funding and research projects at the Laboratory and often reflect its internal wrangles. Those involved are members of the staff, visiting research workers such as J. Brachet and other Committee members, notably M.M. Burger (representative of International Society of Developmental Biologists). Minutes of the Committee have been retained as they are often the subject of discussion and accompanied by Kendrew's manuscript notes of meetings.

- K.53 1973 June-December. Kendrew's appointment, meeting 26 November.
- K.54 1974. Minutes of meeting November 1973, arrangements and minutes for meetings 30-31 May and 2-3 December. Includes manuscript notes by Kendrew and proposals by him and M.M. Burger for "Peripatetic Advanced Training Courses in Molecular and Cellular Biology".
- K.55 1975. Arrangements and minutes for meeting 30-31 May, Kendrew's manuscript notes.
- K.56 1976. Monroy's appointment to Stazione Zoologica, minutes of meeting 5 March and papers relating to financial difficulties of laboratory and to choice of successor to Monroy (Rossi-Bernardi was appointed interim director), minutes of meetings 19 July, 29 November, Kendrew's manuscript notes on interviews with laboratory staff, copy of his letter 1 December to President CNR pressing for appointment of a new director.

- K.57 1977. Appointment of Director (E. Scarano, with effect from 1 May). No minutes survive of meetings 23 February, 21-22 July. Scarano's letters of 15 September and 24 November thank Kendrew for his willingness to continue as President of Committee. Letter of 15 September also refers to historic meeting at Stazione Zoologica, Naples, in 1951 when J.D. Watson met M.H.F. Wilkins and learnt about X-ray diffraction patterns in DNA.
- K.58 1978 (1) January-June. Research projects by J. Brachet and others, possible move of Laboratory, minutes of meeting 2 March, drafts of Kendrew's letter to President, CNR (Italian and English versions).
- K.59 1978 (2) July-December. Minutes of meeting 29-30 June (Kendrew could not attend; M.M. Burger was Chairman), research projects and difficulties.
- K.60 1979. Correspondence, arrangements and papers for meetings 5-6 March, 12-13 July, research projects.
- K.61 1980 (1) January-May. Correspondence with J. Brachet on research; correspondence, papers and minutes of meeting 6-7 March.
- K.62 1980 (2) June-November. Correspondence and minutes for meeting 10-11 July, research projects.
- K.63 1981 (1) February-June. Correspondence and papers relating to meeting 23-24 February. The meeting was stormy and it was not possible to agree a "verbale", three versions of which are included, with annotations and comments by members of the Committee.
- K.64 1981 (2) April - March 1982. Correspondence and papers on new regulations of CNR and of new Committee for Laboratory; Kendrew was asked by Scarano to continue to serve, but he preferred to make room for a new appointment after two four-year terms; papers and minutes of meeting 15-16 July, and later correspondence.

MAX-PLANCK-GESELLSCHAFT

1976-80

Presidential Committee on research in molecular biology and biochemistry.

The committee was set up in July 1976 "to assess the present situation as well as the prospects of the future development of molecular-biological and biochemical research within the Max-Planck-Gesellschaft". The committee met 24-26 March 1977 and there was a follow-up meeting 18-19 July 1980.

K.65 Correspondence and papers for both meetings.

NATIONAL ACADEMY OF SCIENCES (NAS)

1977-85

See R.45 for Kendrew's election as Foreign Associate of the Academy.

K.66 Correspondence, papers, list of participants, programme and report of meeting organised by National Research Council of NAS of "Planning Panel on Large International Science and Technology Facilities" held at NAS 20-21 September 1985. Kendrew attended as a "Discussant".

Submissions to PNAS

Correspondence, drafts and papers, including discussions with authors and referees, on papers communicated by Kendrew for publication in *Proceedings* of NAS, or submitted to him for review.

K.67	1977	K.74	1981 (3)
K.68	1978	K.75	1981 (4)
K.69	1979	K.76	1982
K.70	1980 (1)	K.77	1983 (1)
K.71	1980 (2)	K.78	1983 (2)
K.72	1981 (1)	K.79	1984
K.73	1981 (2)	K.80	1985

NATIONAL SCIENTIFIC RESEARCH CENTER, IRAN

1974-75

K.81 Correspondence and papers with Ministry of Science and Higher Education, Tehran, 1974-75 on proposed national scientific research centre in Iran. Kendrew was invited to join a committee "to investigate the issue and come up with specific recommendations"; a meeting of the "Advisory Experts" was held in Tehran 23-28 June 1975.

Material includes invitation, travel arrangements, list of participants and programme of meeting, manuscript notes taken at meeting by Kendrew, miscellaneous drafts and recommendations, background papers on proposed centre.

NORTH ATLANTIC TREATY ORGANISATION (NATO)

1965-71

Advanced Study Institutes Programme

Kendrew was invited to serve on the Advisory Panel on the Advanced Study Institutes Programme of NATO Science Committee. His appointment, as successor to S. Zuckerman, was in June 1966, the first meeting he attended being in July 1966. He resigned as from the end of 1970, his successor being H.L. Kornberg.

K.82 Correspondence and papers 1965-71, mainly on appointment and succession.

STAZIONE ZOOLOGICA, NAPLES

1976-78

- K.83 Correspondence 1976-78 with A. Monroy (Director) on history, organisation and research at Stazione, collaborative research with EMBL and possible EMBL outstation at Naples.

UNESCO

1976

Mid-term Project Review of UNDP/UNESCO project "Strengthening Training and Research at the Biological Research Center of the Hungarian Academy of Sciences".

Kendrew was invited by UNESCO to be one of a group of six experts "to assist in this Review mission for the evaluation of the project" held at the Biological Research Center, Szeged, September 27 - October 2 1976.

- K.84 Correspondence and papers, including invitation, list of participants, schedule of meetings, background material (Preliminary Summary Report, original Project Document) draft and final report.

Also included is the final report of the first meeting of the European Expert Committee on Biophysics held at the Hungarian Academy of Sciences, Budapest, 2-4 June 1976, which Kendrew also attended. The experts were invited by UNESCO and sat in a personal capacity.

UNION INTERNATIONALE CONTRE LE CANCER (UICC)

1964-65

K.85

Correspondence and papers 1964-65 with President (A. Haddow) and officials, mainly on conference on "International Support of Cancer Research", Stockholm 7-9 September 1964. Kendrew attended and spoke on EMBO as a contribution to a series of reports on current and projected international initiatives. Includes list of participants, programme, Kendrew's report on EMBO and his manuscript notes, statements and press releases.

UNITED NATIONS UNIVERSITY (UNU)

1980-86

UNU was set up in 1973 under the joint sponsorship of the United Nations and UNESCO to engage in "research into the pressing global problems of human survival, development and welfare that are the concern of the United Nations and its agencies ... " The University Centre was in Tokyo. The UNU Council had twenty-four members serving in their individual capacity, appointed jointly by UN and UNESCO for a term of six years; the Council considered and approved the work programmes and budget of UNU, at two annual sessions usually in June and December.

Kendrew was appointed to the Council from 3 May 1980 and was elected Chairman in December 1982 for two years, his successor V.L. Urquidi being elected in December 1984. Under his Chairmanship the Twenty-third Session of Council in July 1984 was held in Oxford. Kendrew also chaired the Nominating Committee for the Rectorship of UNU 1984-85.

The material consists of letters, cables, notes and memoranda, and a little background material relating to meetings, projects and affairs of UNU with which Kendrew was especially involved.

Meetings

- K.86 1980. Kendrew's appointment, letters of congratulation, arrangements for meeting December.
- K.87 1981. Meetings June and December (Kendrew spoke on procedural inadequacy of Council).
- K.88 1982. Meetings June and December (Kendrew was elected Chairman).
- K.89 1983. Meetings June and December.
- K.90 1983-84. Meeting at St. John's College, Queen Elizabeth House and other venues in Oxford, and Symposium on "Democracy and Development", 2-6 July; includes costings, arrangements, social occasions and receptions, programme, list of participants, guest lists, proceedings.
- K.91 Correspondence and cables on membership of Council 1982-85.

Nominating Committee for Rectorship of UNU

The Nominating Committee was set up at the Council meeting of December 1983, with Kendrew as Chairman and two other UNU members, S. Saito and V.L. Urquidi. S. Tanguiane and S.U. Yolah served as representatives of UNESCO and UN respectively. The Committee held three meetings, on 1 July, 2 November and 8 December 1984, all in Oxford, and a panel of five recommended names was put forward on 9 January 1985. Under the articles of the UNU Charter, the Rector in post, K. Soedjatmoko, was eligible to serve for a second term, and his appointment was renewed for two years from August 1985 (see correspondence at K.97).

- K.92 Correspondence, cables, recommendations and back-up material, notes of meetings and discussions, information on UNU passed on to Kendrew by staff and Council members, February 1984 - January 1985.

K.93 Miscellaneous memoranda and submissions on administration of UNU.

Correspondence

K.94 Correspondence 1982-83 on UNU World Hunger Programme.

K.95 Correspondence and papers 1983-85 on World Institute for Development Economics Research (WIDER), Helsinki, the first research and training centre to be established by UNU; location, appointments, statutes, notes of visits and discussions, funding.

K.96 Miscellaneous correspondence and papers 1983-85 on various proposed collaborative projects with UNU.

K.97 Shorter correspondence on UNU affairs 1984-87. Includes letters of congratulation on renewal of K. Soedjatmoko's appointment as Rector July 1985, letters of thanks on conclusion of Kendrew's service on Council May 1986.

UNIVERSITE LIBRE DE BRUXELLES

1974-78

Department of Molecular Biology

Kendrew was invited in March 1974 by the Director, J. Brachet, to be a member of the international scientific advisory committee being set up to re-evaluate the scientific activities of the department and staff, with special reference to the renewal of a research contract between the Belgian state and the University of Brussels. The annual meetings were timed to tie in with those of the Scientific Council of the ICP at Brussels (q.v.) several of whose members, including Kendrew, also served on the committee. The committee met on 30 April 1975 to inspect and receive reports on the current research, on which it reported favourably. Funding difficulties, however, continued.

K.98 Correspondence and papers 1974-76. Includes invitation to serve, arrangements for meetings, reports and evaluations.

K.99 Correspondence and papers on the Francqui Symposium on Differentiation, chaired by Kendrew, held 19-21 June 1978 to mark the retirement of J. Brachet and R. Jeener. Includes Kendrew's notes for his opening and closing speeches and of papers given at meeting, draft and final programme, list of participants, tributes and short accounts of work of Jeener and Brachet.

THE WEIZMANN INSTITUTE OF SCIENCE

and WEIZMANN INSTITUTE FOUNDATION

1963-86

Kendrew's long connection with the Weizmann Institute began in 1963 when he was invited by N.M.V. Rothschild to become a member of the Board of Governors, to which he was formally elected in 1964. He became an Honorary Fellow of the Institute in 1969 and served it in many capacities: as a member of the Executive Council, Co-Chairman of the Scientific Academic Advisory Board, Vice-Chairman of the Appointments and Promotions Committee (from 1983) and on the Nominating Committee for Members of the Board, as well as on various *ad hoc* committees.

He was also a member from 1966 of the Executive of the Weizmann Institute Foundation, a Foundation incorporated in the UK to support the objects and research programmes of the Weizmann Institute of Science in Israel (K.117).

The material covers all aspects of the scientific life of the Weizmann: arrangements for meetings, symposia and visits, comments on research projects proposed or in hand, evaluations, promotions, recommendations, funding and support etc. In addition, since many of the leading biological scientists at the Weizmann were or became personal friends of Kendrew through EMBO, EMBL and other international organisations, there is some reference to these institutions, and a little personal correspondence.

- K.100 1963-65. Invitation and election to Board of Governors, possible collaborative research proposals with UK Ministry of Technology (unsuccessful), report on chemistry at the Weizmann.
- K.101 1966-67. Proposed School for Molecular Biology, research and funding proposals, Abba Eban Chair (first holder: A. Katzir).
- K.102 1968-69. Fund-raising, proposed research group in neurophysiology, Kendrew's election to Honorary Fellowship, Memorial Centre for A. de-Shalit.
- K.103 1970. Extraordinary General Meeting of Board of Governors May (includes Kendrew's manuscript notes for report of committee on scientific affairs), possible future expansion in biological sciences, membership of Scientific and Academic Advisory Committee.

- K.104 1971-72. Summer Symposium "The impact of science on society", Brussels 28-29 June (Kendrew chaired a session), membership of Academic Sponsoring Committee of International Summer Science Institute (as from 1972).
- K.105 1972-73. Material relating to the death of A. Katchalsky* in the attack on Lod airport May 1972. Includes letters and cables of condolence, arrangements for posthumous publications, memorial issues of journals, memorial Fellowship, Symposium and Katzir Center at Weizmann. Kendrew served on the International Committee for the Katzir Center (letter of 24 July), and wrote an appreciation of Katchalsky for the *Jerusalem Post*.
- * Aharon and his brother Ephraim used the name Katchalsky, later hyphenated as Katchalsky-Katzir and Katzir-Katchalsky; subsequently the form Katzir alone was used. Correspondence and international reference books vary in their choice of form.
- K.106 Miscellaneous material relating to Katchalsky, tributes, information on Memorial Conferences, Katzir Center etc. Includes reprinted version of Kendrew's tribute from *Jerusalem Post*.
- K.107 1973
- K.108 1974-76. Research groups on membranes and neuroscience, membership of International Sponsoring Committee for the Chaim Weizmann Centenary Celebration, arrangements for meetings of Board and of Scientific and Academic Advisory Committee (includes Kendrew's manuscript notes on Chemical Immunology Department 1975).
- K.109 1977. Arrangements and schedules for meetings, evaluation and report on activities.
- K.110 1978. Arrangements and schedules for meetings, research proposal, report on research on "The physical chemistry of proteins" and on general research activities, with Kendrew's extensive manuscript notes.
- K.111 1979-81. Recommendations, re-election to Board of Governors.

- K.112 1983. Research, election to Appointments and Promotions Committee.
- K.113 1984. Meetings, recommendations.
- K.114 1985. Re-election to Executive Council and to Board of Governors, appointments, meetings, research projects.
- K.115 1985-86
- K.116 1986. Meetings and assessments, equipment, Kendrew's notes and presidential remarks for opening ceremony of symposium in honour of E. Katzir.

Weizmann Institute Foundation 1963-88

- K.117 Kendrew's election to the Executive 1966, his resignation 1975 because of inability to attend meetings while working at Heidelberg, rejoining 1983 on retirement from EMBL. Includes Kendrew's message for 50th Anniversary Endowment Dinner with a brief account of his connection with the Weizmann.

WORLD HEALTH ORGANIZATION (WHO)

1963-66

Material May 1963 - May 1966 relating to a proposed World Health Research Centre, to be set up under the aegis of WHO. Informal meetings of European scientists were held on 26-27 June 1963 (under the title "Informal WHO meeting on research development in chemical mutagenesis and toxicities") and 29-30 November 1963 (under the title "WHO Informal meeting of scientific advisers on special research development"). A report was prepared and accepted by the Executive Board of WHO in January 1964. It was expected that the WHRC would concentrate its research programme on epidemiology, communications science and technology, and biomedical research. The siting of the WHRC, and the development of research in molecular biology through EMBO and its proposed laboratory, were not determined at this time.

Kendrew was one of the advisers involved from the start of the project and contributed ideas on organisation, costs and research projects based on early discussions of the EMBO group. Most of the correspondence is conducted with M.M. Kaplan, Special Adviser on Research Development, WHO. See also F.169.

- K.118 May 1963 - January 1964. Correspondence and papers, arrangements for meetings, lists of participants, reports, submissions to Executive Board, meeting of MRC in London 16 January 1964 to discuss proposed new WHRC, with manuscript notes by M.F. Perutz.
- K.119 January 1964 - May 1966. Correspondence, papers, press comment on possible work of WHRC, arrangements and list of participants for "Informal meeting on work in communications science and technology in the proposed WHRC" 1-3 July 1964, relations of WHRC and EMBO.