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A brief history of the French Society for Microbiology

1. Introduction

One may wonder why there was no French society devoted to microbiology prior to 1937, whereas the Society of American Bacteriologists was founded in 1899 (renamed American Society for Microbiology in 1961) and the Frei Vereinigung für Hygiene und Mikrobiologie was founded in 1906 (and renamed Deutsche Vereinigung für Mikrobiologie in 1922 and Deutsche Gesellschaft für Hygiene und Mikrobiologie in 1949). The reason is that the Institut Pasteur, with a conference hall, was the place to meet colleagues. Being a non-governmental organization, the Institut Pasteur could hire scientists from all over the world. It was the Mecca of microbiologists world-wide.

2. In the beginning was the Institut Pasteur…

In early times of microbiology, scientists who were not German- or English-speaking would communicate their findings in French. Physicians came from remote countries of the world to learn about rabies treatment and microbiological methods from Pasteur's team. These doctors, «converted» to microbiology, would then disseminate and «preach» this new science. Pasteur would receive reports on rabies treatment (in French) from foreign cities as diverse as Saint Petersburg, Russia (Dr Kraiouchkine, in the laboratory founded by His Imperial Highness, Prince Alexandre Oldenburg), Odessa, at that time in Russia (Drs Metschnikoff and Gamaleia), Moscow, Russia (Dr. Gwozdeff, in a laboratory founded by Prince Dolgoroukow), Samara, Russia (Dr Parchenski), Charkow, then in Russia (Dr Protopopoff), Warsaw, Poland (Dr Bujwid), Constantinople (Dr Zoeros Pacha, Imperial Bacteriology Institute), Torino, Italy (Dr Uffreduzzi), Milan, Italy (Dr Baratieri), Palermo, Italy (Dr Celli), Havana, Cuba (Dr Santos Fernandez, Antirabies Institute) and Rio de Janeiro, Brazil (Dr Ferreira dos Santos, in a laboratory founded by His Majesty the Emperor of Brazil).

Emile Duclaux in 1887 launched a journal in French devoted to microbiology, naturally named «Annales de l'Institut Pasteur». The first paper was by Louis Pasteur himself and was entitled «Lettre de M. Pasteur sur la rage» [3]. The paper began with «Mon cher Duclaux» and congratulated E. Duclaux for launching this new journal. The scientific part of the paper followed. Each issue of the Annales de l'Institut Pasteur contained memoirs, i.e. rather lengthy papers, statistics on rabies treatment from the Institut Pasteur, reviews and analyses of current literature, and occasional obituaries or other information.

Contributors to the Annales were mostly Pasteurian disciples (i.e. trained at the Institut Pasteur) in France or overseas. Former Institut Pasteur trainees often created a laboratory in their own country and sent their findings to the Annales. Some were sent abroad to create a daughter Institut Pasteur, e.g. in Saigon (1891, now Ho-Chi-Minh City), Tunis (1894), Algiers (1894), Nha Trang (1895) and Madagascar (1898). Other institutions not bearing Pasteur's name were nonetheless part of a large pasteurian intellectual network, such as the Institutul Cantacuzino in Bucharest (1901), the Bacteriological Institute in Odessa and the «Institut Impérial de Bactériologie de Constantinople» in Istanbul. Early issues of the Annales contained many contributions from Metchnikoff, Gamaleia, Bardach (Odessa), Bujwid (Warsaw), Hogyes (Budapest), Victor Babes (Bucharest), Pawlowsky (Saint Petersburg), Perroncito, Carita (Torino) and von Freudenreich (Germany), in addition to members of the Institut Pasteur in Paris. Authors' first names (or initials) and addresses were often not given («M. Pasteur» meant «Monsieur Pasteur») or the addresses might be limited to the city. Therefore, any discussion about a paper was by means of a note in the Annales. The paper by Elie Metchnikoff entitled «Sur la lutte des cellules de l'organisme contre l'invasion des microbes» [2], in which he presented phagocytosis as the main means of defense against pathogenic bacteria, drew several reactions from his colleagues.

Anyone browsing through early volumes of the Annales is struck by the richness of the pasteurian network, with newly trained microbiologists discovering new etiologic agents in remote countries, and «Pasteurian missionaries» such as A. Calmette, A. Yersin, E. Marchoux, A. Le Dantec and P.L. Simond being sent overseas to organize laboratories and face exotic infectious diseases. Obituaries published in the Annales show some adventurous characters. One example is the life of Jean Bablet (1886–1952), who was trained as a doctor for the French Colonial Health Service (Corps de Santé Colonial) and sent to Oubangui-Chari (now Central African Republic) where he had to detect patients with trypanosomiasis. He was attacked by a panther and seriously wounded. Sent back to France in 1914, he participated in World War I. In 1916, he

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returned to Oubangui-Chari where he caught sleeping sickness (trypanosomiasis). Repatriated to France in 1917, he was treated at the Hôpital Pasteur (then in the Institut Pasteur setting). Since the treatment was very long, he attended a laboratory in which he learnt pathology. In 1920, he was sent to the Institut Pasteur of Saigon and that of Hanoi, as Director. After 12 years in Viet Nam, and since he was in poor health, he was sent back to France. On the return trip, the ship he was on burnt and sank in the Indian Ocean and he lost his documents and specimens. He then officially retired and opened a pathology laboratory in which he worked until his death. Present careers in microbiology are less risky – all we now get is a backache sitting behind computers.

Although the Annales were a nice place for presenting and disputing new microbiological ideas, this was done by mail at a time when airmail did not exist. Sending a manuscript from Saigon to Paris by boat was certainly slow. Microbiologists would attend congresses of hygiene and demography. Following World War I the League of Nations (Société des Nations) was created and included many committees (on refugees, expatriates, passports, hygiene, etc.). In April of 1927, a conference of the Hygiene Committee of the League of Nations (Conférence Internationale de la Rage, Paris, April 25–29) was held at the Institut Pasteur. The constitution of an international association for microbiology was proposed.

3. The International Association for Microbiology (Association Internationale de Microbiologie)

The first executive board of the Association was composed of a President, Jules Bordet (Brussels, Belgium), a General Secretary, R. Kraus (Vienna, Austria), and other board members, R. Dujarric de la Rivière (Paris, France), E. Gildemeister (Berlin, Germany) and H. Plotz (USA). Harry Plotz, a wealthy American physician, worked for a long time at the Institut Pasteur after World War I. The first task of the executive board was to prepare for the first congress of the association.

The first International Congress of Microbiology was held at the Institut Pasteur, Paris, on July 21, 1930. There were five sessions or workshops: general and medical microbiology (variability and lytic phenomena, scarlet fever, filterable neurotropic viruses, cholera, and influenza), veterinary microbiology (undulant fever), agriculture microbiology (plant immunity), serology and immunity (lipoids, cell cultures, and blood groups), and protistology and parasitology (leptospirosis, spirochetosis, and borreliosis). Demonstrations and other conferences dealt with BCG vaccination (Calmette), diphtheria anatoxin (Ramon) and soil microbiology (Winogradsky). Many countries were represented and French was the working language.

The statutes of the Association were agreed upon (Paris, 25 July,1930). It is interesting to read the first article of the statutes: «Cette Société a pour but, non seulement de favoriser la production scientifique en créant des relations plus étroites entre ceux qui, dans les divers pays, y collaborent, mais surtout d'affirmer l'unanime conviction de ses membres que la Société doit unir les Nations dans un idéal de paix inaltérable et de constante solidarité». It can be freely translated as follows: «The purposes of this Society are not only to stimulate scientific production by building closer relationships between those who contribute in the diverse countries, but mainly to affirm the unanimous conviction of its members that the Society should unite nations in an ideal of unalterable peace and constant solidarity» [1].

The evolution of the International Association for Microbiology which led to the International Association of Microbiological Societies and the International Union of Microbiological Societies is described in this issue [4].

The subsequent congresses were held in London and New York, where English was more often used than French. Therefore, French-speaking microbiologists (who often could not communicate in another language) understood the need for a Society in which they could exchange their views without confronting the language barrier.

4. The «Association des Microbiologistes de Langue Française»

The Association des Microbiologistes de Langue Française (AMLF) was founded in Paris on 28 October, 1937. Association headquarters were located at the Institut Pasteur, Paris. There were branches in diverse countries where scientists communicated in French (not necessarily French-speaking countries). Each branch was also a member of the International Association for Microbiology. Thus, the French branch of AMLF was the French branch of the IAM.

The first congress of the AMLF was held on 27–29 October, 1938 at the Institut Pasteur, Paris. The proceedings were published in the Annales de l'Institut Pasteur in the following form. Major contributions, called «rapports» (reports) were published as full papers in the Annales, and their titles, references and public discussion were given in the proceedings. Shorter contributions («contributions») appeared in the proceedings (Ann. Inst. Pasteur, 1938, 61, 756–882). There were five sessions. Session 1 was on bacterial somatic and flagellar antigens (report by A. Boivin, followed by 12 communications). Session 2 was on growth factors (report by A. Lwoff on growth factors for microorganisms, followed by two communications and a report by P. Bordet on growth factors and toxin production, followed by seven communications). Session 3 was on the evolution of antibacterial chemotherapy (report by E. Fourneau, and five communications). Session 4 was on ecological microbiology (report by S. Winogradsky, plus 18 communications). Session 5 was on ultraviruses (report by A. Gratia, 15 communications).

The General Assembly constituted a commission for accepting new members (members were accepted by unanimous vote) and elected the executive board. This was composed of a President (Louis Martin), a Vice-President (J. Bordet), three General Secretaries (P. Lépine, France; P. Bordet, Belgium; and M. Ciuca, Romania), and a Treasurer (A.-R. Prévot).

Since the second IAM congress was scheduled to be held in 1939 in New York, it was decided that the second congress of the AMLF would be in Brussels, in 1940.

An unforseen nuisance occurred – World War II. European members of AMLF living in countries involved in the war could not attend the IAM congress in New York, and the projected AMLF congress scheduled in Brussels was cancelled. Indeed, the war put an end to the AMLF by isolating national branches.

Between 1941 and 1944, Parisian members were able to attend 10 meetings each year (October–July) on the first Thursday of the month in the Institut Pasteur Lecture Hall. Short communications were published in the Annales de l'Institut Pasteur (with a delay). Some historical notes were published, such as that of J. Monod «Sur la nature du phénomène de diauxie» (meeting of December 2, 1943, published in 1945).

The Association decided not to proceed to any General Assembly or election (new members or executive board) so as to escape from facing discriminative laws.

5. The «Société Française de Microbiologie»

When freedom was reinstated, several branches of the AMLF were behind the «Iron Curtain» and the world had changed. A General Assembly was held on October 5, 1944. New members (since 1939) were accepted, including Jacques Monod. A new name, the Société Française de Microbiologie (SFM), and new statutes were approved. The executive board (elected by 91 members) was composed of a President (L. Nègre), two Vice-Presidents (Magrou, Gastinel), a Secretary General (P. Lépine), a Treasurer (J.C. Levaditi) and four Members-at-Large (Dujarric de la Rivière, Régnier, Verge, Lwoff). The term of office was 3-years.

The SFM routine comprised monthly meetings, with presentation of new books, titles of written-only communications and oral communications. All communications were published in the Annales de l'Institut Pasteur either as full papers («mémoires», 7–30 pages), published when accepted, or short communications (1–5 pages). Proceedings of the SFM meetings thus contained obituaries (if any), presentation of new books, citations from full papers, texts of short communications and other information. These proceedings were included monthly in the Annales de l'Institut Pasteur and were clearly identified with specific page headings. The publication delay was now about two months after the meeting.

A break from this routine was the International Colloquium on Bacteriophages, Royaumont, 1952.

But the SFM was falling asleep. Subjects in monthly meetings were too diverse and less than 20 members (mostly Parisian) attended.

To up the Society more dynamic, it was decided to organize annual thematic meetings (called «Colloques annuels») with invited speakers from other regions or countries. The other decision was to encourage the formation of specialized working groups called «Sections». In the mid-50s, English summaries appeared in Annales de l'Institut Pasteur articles, including those stemming from the SFM.

The first annual colloquium (1957) was devoted to the species concept in the light of recent discoveries (these included the DNA base composition and genetics). It was published in full in 86 pages of the Annales de l'Institut Pasteur (1958, volume 94, issue 2). In 1958, the colloquium was on evolution of bacteria and infectious diseases due to antibiotics. In 1959, a two-day colloquium concerned immunology and vaccination. These colloquia coexisted with monthly heterogeneous meetings.

Specialized working groups, called «sections», were formed mainly between 1959 and 1970. These included virology, mycology, soil microbiology, food microbiology, immunology, antibiotics, and nomenclature and taxonomy sections. Two sections were formed later on: industrial microbiology and biotechnology (1975) and clinical microbiology (1977). In 1966, the immunology section constituted a separate society named the Société Française d'Immunologie.

The most active sections organized a yearly meeting, while other sections met less regularly. Therefore, thematically heterogeneous monthly meetings disappeared. Furthermore, only communication abstracts were now published in the Annales de l'Institut Pasteur which were renamed Annales de Microbiologie from 1973 to 1984, and Annales de l'Institut Pasteur/Microbiology from 1985 to 1988.

Presidents between 1963 and 1977 included Gernez-Rieux, A. Lwoff, J. Senez, and L. Hirth. E.L Wollman was the SFM representative to the IAMS. From 1963 to 1974, L. Le Minor was Secretary General. He was subsequently replaced by J.F. Vieu. At that time, the driving force was the Secretary General, with his adjunct helping to organize meetings, while the President's role was to moderate their enthusiasm. Elections were quickly carried out. The Secretary General would suggest a list of potential Executive Board members and the Assembly (usually 20–40 members) would vote for or against the list. The same applied for the rest of Council members. Of course, anyone could claim to be an additional candidate, but the chances of being elected were meager.

In 1977, Madeleine Sebald was Adjunct Secretary General and I replaced her in 1981. My first tasks were to host a FEMS (Federation of European Microbiological Societies) meeting in Seillac (1983) and to revive the dying food microbiology section. Responsibility for animating this section was given to Cécile Lahellec, who did an excellent job for many years.

6. The reform of 1983

The Executive Board elected in 1983 was composed of the President, E.L. Wollman; Vice-Presidents, C. Hannoun and M. Véron; Secretary General, P.A.D. Grimont; Adjunct Secretary General, C. Elmerich; Treasurer, L. Bobichon; and Adjunct Treasurer, D. Videau (replaced by J. Florent in 1986). Sections were reviewed and those which had not organized any meeting in a 3-year term were closed. More professional accounting with clear financial statements was enforced. The SFM now had a full-time secretariat with a dedicated office. The Executive Board met on a monthly basis. Access to SFM scientific meetings was now limited to members who had paid their dues. Elections were to become transparent and controlled.

Later, it became a rule to have more candidates than positions to fill.

P.A.D. Grimont and C. Elmerich proposed organizing a national congress every three years, with cross-section themes. Elections to the Council (and Executive Board) would occur at each congress. All members of the Executive Board were tempted by this adventure.

The first congress was hosted by Paul Sabatier University of Toulouse, on 3–5 April, 1986. There were plenary sessions (cross-section themes), parallel sessions (specialized topics), roundtables and poster sessions. It was a success although the setting was a bit rustic.

A bulletin for publishing congress and meeting programs, registration forms and news from the SFM or other institutions of interest was felt necessary. J. Florent was instrumental in developing this bulletin.

We learned a lot from this first congress experience. Further congresses would be held at conference centers and would include conferences by invited speakers; parallel sessions would be organized by sections, and the Council would be the congress organizer. The local committee could not decide on spending without approval by the Treasurer. Later exceptions to this rule led to catastrophic losses (in 1998). The congress fees were higher for non-members. Therefore, many memberships were recorded prior to each congress. An unlimited number of posters were permitted. However, there was one presenter per poster and each person could present only one poster. This drew at least as many congress attendants as posters. In practice, the total number of attendants was about twice that of posters.

This new policy resulted in spectacular growth of the Society. Membership rose from 941 in 1982 to 1410 in 1985 and 2200 in 1989.

In 1988, the Director of the Institut Pasteur changed the name of the journal from Annales de l'Institut Pasteur/Microbiology to Research in Microbiology. The President of the SFM, E.L. Wollman did not approve of the change, and the mention «Organe de la Société Française de Microbiologie» disappeared from the front page of the journal.

The SFM statutes were changed in 1989 to modernize the Society. Honorary members included eminent foreign scientists who had collaborated with French Institutions. New members were admitted by the Council. The Council was composed of 20 elected members, section conveners and the last President, Secretary General, and Treasurer (these last three for one term only). The Executive Board was elected by the Council members. Re-election of executive board members was limited in time. The statutes were also modified to comply with the request to be recognized as a «Société reconnue d'utilité publique» by the government. Such recognition would allow the Society to receive gifts and wills.

The second congress was held in Strasbourg in 1989. A new Executive Board was elected, with M. Véron as President and C. Elmerich as Secretary General. The Bulletin improved its presentation due to the efforts of J. Florent.

The third congress was held in Lyon (1992). The new Executive Board consisted of P.A.D. Grimont as President, L. Penasse as Secretary General and J. Etienne as adjunct.

The status of «Société reconnue d'utilité publique» was granted (1993). A project to host a IUMS Congress in Paris was prepared.

The fourth SFM congress was held in Tours (1995). It benefited from earlier experience and was a great success both scientifically and financially.

The most difficult aspect in managing a learned society is to keep together groups of members with different interests. Sections have a tendency to believe their theme is the most important one. Diversity is a treasure which is not always perceived as such. In 1995, senior SFM members from Paris hospitals projected to split from the SFM and create a medical microbiology society which would deal with both scientific and professional issues (clinical microbiology standards, antibiotic susceptibility break-points), thus forgetting that important discoveries in this field in France were often done in research institutes.

To avoid a split with the SFM, the President suggested that the next president be a hospital microbiologist, J.P. Flandrois. The first move by J.P. Flandrois was to request an audit of the Society which showed a clear and financially flourishing situation. The action of J.P. Flandrois as President was mostly to improve and formalize the administrative side of the SFM and succeed in the bid to host the IUMS congress (Paris, 2000). At his request, a document entitled «Charte d'éthique» (ethical charter) was prepared by P.A.D. Grimont. Subsequent events are too recent to be history.

7. Conclusion

Organizing a learned society like the SFM is a difficult task. All aspects of microbiology must be encouraged, and a lot can be learned from colleagues working in different fields.

Historically, the aim of the meetings was to stimulate scientific endeavors by inviting researchers to share new concepts, methods and other findings with an audience composed of both researchers and professional microbiologists. Attending members would then get an idea of what tomorrow might look like.

Finally, we should think about the «raison-d'être» of the French Society for Microbiology. Microbiology has no frontiers. In the European Union, it might appear rather obsolete to hold onto a national society. The ESCMID (European Society for Clinical Microbiology and Infectious Diseases) and FEMS should theoretically be enough for Europeans. However, the major interest of SFM is its linguistic aspect. A French-speaking society enables its members, including local professionals, to communicate easily in their own language. What destroyed the AMLF is now buried in history. With rapid transportation, internet and video-conferencing, a French-speaking Society for Microbiology could have branches in different countries and continents (including forgotten Africa). Well, I'm dreaming again…

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