The Annales de l'Institut Pasteur, 1887-2007: A glimpse into history

Sandra Legout

*Médiathèque scientifique de l'Institut Pasteur
28 rue du Docteur Roux, 75724 Paris Cedex 15, France*

legout@pasteur.fr

1. Introduction

The Annales de l'Institut Pasteur are now 120-years-old. With this article, we are celebrating its presence on the shelves of our library throughout those years and paying tribute to the fact that the Annales were the first periodical in France to specialize in microbiology. Surprisingly, the Annales have never before been the subject of a historical investigation, and their past has always been only briefly evoked by Pasteurians. In 1962, Albert Delaunay published a book which for the first time related the history of the Institut Pasteur. The passage he devoted to the Annales reads as follows: "As I write these words, the Annales de l'Institut Pasteur are publishing their 100th volume. We might say that they most admirably recount events in the entire history of microbiology, but we feel justified in adding that, between the lines, they bear witness to the veritable history of the Institut Pasteur" (1). That sentence sums up what the Annales represented in the eyes of Pasteurians, and what they continue to symbolize today: a collection which contains within its pages the entire panorama of the Pasteurian scientific era.

2. A personal decision on the part of Emile Duclaux

In 1886, Louis Pasteur emerged from a long period of research, followed by the struggle to impose upon the scientific world his discoveries of the vaccination against rabies. Old, tired and ill, he delegated to his close collaborators Emile Duclaux and Emile Roux the task of taking charge of the construction and organization of the Institute which would soon bear his name. The need for a periodical which published research work was on everyone's minds, but the new Institute's funds were insufficient or could not be allotted to starting up a scientific publication. Emile Duclaux thus took charge of the practical needs of the future journal.

There exist no archives enabling us to precisely trace the genesis of the journal, but certain documents give us an idea of what led Emile Duclaux to personally launch it. In her biography of her husband, Mrs. Emile Duclaux indicated that it was a project which had long been contemplated, dating from the period when, while preparing his aggregation in Pasteur's laboratory at the Ecole Normale Supérieure, he discussed this with his colleagues and with his Master (2). Indeed, Louis Pasteur corroborated these intentions in his introductory letter to the first volume of the Annales, indicating that he had on numerous occasions discussed this possibility with Duclaux: "Very often during our laboratory chats, we regretted not having available a journal that was more intimate and less solemn than the "Comptes-rendus de l'Académie des Sciences".

In December 1886, Emile Duclaux indicated in a letter to one of his friends that he was both the "silent partner and the type-setter" for the journal (2). Although aware of the enormous amount of work which awaited him in addition to directing his two laboratories, he nonetheless was sufficiently confident of the success of this undertaking to take the risk of financially engaging in such an adventure; he even hoped that after several years the journal

would make a few profits. Thus, the Annales came into being as an independent journal exclusively financed by Duclaux and not by the future Institute.

The first issue came out in January 1887 bearing the title “Annales de l’Institut Pasteur” and the subtitle “revue de microbiologie” or, “a microbiological review”. It was sponsored by Louis Pasteur and directed by Emile Duclaux, with the participation of an editorial committee composed of Messrs. Chamberland, Grancher, Nocard, Roux and Straus. It was published in Paris by G. Masson, the editor and librarian of the Académie des Sciences. Each issue grouped together original articles and critical analyses of articles which appeared in other French and international journals. The latter section required an enormous amount of Duclaux’s time, but it was very much in demand by young scientists who found in this section the means of keeping aware of work being done in other French laboratories and in well-known institutions abroad. Weekly meetings for bibliography sharing and exchanging viewpoints had been attempted, but without any true success, since “the call of the laboratory bench” was so much more compelling. It was for this reason that, in 1903, a new review came into being, the “Bulletin de l’Institut Pasteur”. It bore the subtitle: “revues et analyses des travaux de bactériologie, médecine, biologie générale, physiologie, chimie biologique dans leur rapports avec la microbiologie”, or “reviews and analyses of works in bacteriology, medicine, general biology, physiology and biological chemistry, in relationship to microbiology”.

For nearly 12 years, Emile Duclaux held the editorial and financial reins of the review. In 1904, after his death, the accounting books showed that from 1898 on, the Annales made 10,000 Francs net per year. The Directorship of the Institut Pasteur decided to acquire the journal. During the meeting of the Board of Directors on June 8 1904, Emile Roux announced he would take charge of its management and that henceforth the expenses and earnings generated by its production and subscriptions would be included in the Institute’s budget. The profits would be used for paying the journal’s expenses. Madame Duclaux and her two sons would receive a life annuity as compensation.

3. The affirmation of a school of thought

Louis Pasteur was to publish only one article in the Annales (6) in addition to his letter on rabies and his speech at the inauguration of the Institute; indeed, his state of health had considerably restrained his writing activities. A letter dated March 8, 1887 and addressed to his friend and doctor Joseph Grancher indicated he was greatly interested in the journal, which he considered to be “of fine quality” (8). During a session at the Academy of Sciences in 1888, he described the collection as being “entirely consecrated to the world of microbes”(7). The Annales officially became the journal of his Institute.

This solemn consecration once again demonstrates that Louis Pasteur and Emile Duclaux were perfectly aware of what the Annales represented. The publication of a specialized review on the questions and debates surrounding microbiology was, for the Institute, a powerful and important means of very rapidly acquiring professional and social recognition and of publicizing the Institute’s scientific community. Academic recognition thus fully justified developing and validating a highly specific group of research scientists: the “Pasteurians”.

4. A specific editorial line

Emile Duclaux, Director of the review, surrounded himself with a small group of students and former co-workers of Louis Pasteur (Table 1).

This tiny committee (no more than 7 persons) included some very strong personalities who, because they wholeheartedly adhered to Louis Pasteur's ideas, maintained a cohesive scientific spirit which was the particularity of the journal. This tradition of a small Editorial Committee composed of illustrious members of the "Maison Pasteur" was to endure nearly 80 years, up until 1968. The successor to Emile Duclaux and Emile Roux was Albert Calmette, in 1922. In 1932, Alfred Boquet officially took over the function of Secretary General, followed by Pierre Lépine in 1948.

Professional networks formed around these personalities, who wrote up original papers and published results of work carried out in their departments. Thus, they were acting in accordance with Louis Pasteur's intentions by giving priority to research done in the laboratories at Pasteur, which naturally ended up being published in the *Annales*. They also generated a certain amount of group competition by welcoming scientists from countries such as Russia, Belgium, Switzerland, Italy and Romania. We should note here that the main body of the texts published in the journal were, up until 1968, almost exclusively written in the French language. From 1915 on, papers were also published in English, but only on extremely rare occasions.

Elsewhere, networks were also forming around the laboratory directors and heads of the rabies vaccination centers set up along the lines of the Paris model, both in France and throughout the world: Albert Calmette in Lille, Maurice Nicolle and then Paul Remlinger in Constantinople, Charles Nicolle in Tunisia, and the brothers Etienne and Edmond Sergent in Algeria.

The *Annales*, which were considered by Pasteurians to represent a suitable means of transmitting and propagating their work, published a number of first-rate contributions which helped to make it successful and well known. The fields which were to forge the reputation of the Institute very rapidly became known: infectious diseases, bacteriology, virology, immunology, parasitology, mycology, hygiene, and chemistry as applied to biology.

5. The *Annales* and the increasing popularity of microbiological journals (1908-1968)

For fifty years, the *Annales* published original papers, letters to the Editor and position papers. Their pages teemed with a multitude of ideas, both controversial and novel. But a difficult era had already gotten underway in 1908 when the Institut Pasteur welcomed onto its premises the "Société de Pathologie exotique" and began publishing, under the direction of Alphonse Laveran and Félix Mesnil, the "Bulletin de la Pathologie exotique". Prior to this, in 1906, Charles Nicolle, following in the tradition of the Paris Institute, had created for his institute in Tunis its own publication, "Les Archives de l'Institut Pasteur de Tunisie". In 1921, a movement began among the Instituts Pasteurs d'Outre-mer to start up new journals, beginning with the "Archives de l'Institut Pasteur d'Algérie"; this continued up until the end of the 1940s (Table 2). All of these initiatives meant that many articles were being funnelled away from the pages of the *Annales*.

In 1937, the Société française de Microbiologie (SFM), or French Society for Microbiology, was founded, with the goal of favoring scientific production and developing research in microbiology. Again, its headquarters were located on the premises of the Institut Pasteur. The SFM actively sought out research results from the Institut Pasteur, other French institutions and French-speaking areas of Europe and abroad for presentation at important yearly meetings. These talks were then published in the "Congrès de l'Association des microbiologistes en langue française" or "Congress of the Association of French-speaking

Microbiologists". From 1941 on, the *Annales* published these papers in the form of preliminary notes, but as time passed, the subjects became too varied, readership declined and general interest waned.

After the Second World War, the scientific publishing world began to witness a new mode of knowledge production involving collaboration between scientists from different countries. This international trend and the standardizing of exchanges between scientists of different nationalities were to facilitate linguistic uniformity to the advantage of the English language; likewise, they were to end up transforming the writing habits of researchers from non-Anglo-Saxon countries (4).

6. Editorial initiatives

Thus, the gradual decline of the *Annales* was essentially due to both in-house competition and the ever-increasing international exchange of scientific knowledge. During the 1960s, a number of reorganizations were attempted. In 1968, Jacques Fournier, then Secretary General (Editor in Chief), indicated that the Editorial Committee was "composed of 30 members (21 of whom are Pasteurians) divided into 5 commissions corresponding to the disciplines of the papers proposed for publication. This Committee decides on the orientation of the journal, acceptance of the manuscripts, and, if necessary, modifications to be proposed to the authors. The *Annales* (...) have become the official organ of the Société Française de Microbiologie and the Société Française de Immunologie"(3). The goal was to publish experimental research which provided new and original results. The issues were monthly and included a column entitled "Analysis of recently published books" and another called "Opinions and communiqués" in which conferences of interest were announced. Results by Pasteur researchers were published alongside those of foreign institutes and laboratories. The end of colonialism meant that contributions were also coming in from Pasteurians who had been at the Pasteur Institutes in the colonies; indeed, certain of these institutes closed down or changed their name, and no longer published their own journals (Table 2). Most of the texts were published in the French language but were accompanied by a summary in English, and vice-versa for English-language texts.

During the course of the years from 1970 to 1980, the decline in readership continued. There were two reasons for this: the increasing role of the English language in scientific communication and literature and the creation of other Anglo-Saxon journals in microbiology and immunology.

In 1973, the *Annales* officially began to accept articles written in English. To adapt to the evolution taking place in certain fields, they were then split up into two new journals, the "*Annales de Microbiologie* (Institut Pasteur)" and the "*Annales d'Immunologie* (Institut Pasteur)", and in 1980, a third journal, the "*Annales de Virologie* (Institut Pasteur)". In 1985, the title of the reviews became bilingual: "*Annales de l'Institut Pasteur/Microbiology*", "*/Immunology*" and "*/Virology*", and by the end of the decade a large proportion of the articles were submitted and published in English. Despite these changes, the Directorship of the Institute, led by Maxime Schwartz, noted a lack of international recognition of these journals. The *Annales* suffered from its apparent status of an official publication of the Institute rather than being considered what it was, i.e. an international journal, open to scientists worldwide. Therefore, the Directorship took a certain number of measures: the *Annales de l'Institut Pasteur* was replaced by the title "Research in" ("Research in Microbiology" Editor in Chief Maurice Hofnung, "Research in Immunology" Editor in Chief Philippe Kourilsky and "Research in Virology" Editor in Chief Claude Hannoun) and French was no longer the official language, to the benefit of English.

These changes were denounced by some French politicians and members of the French scientific community, who came to the defense of the French language and the prestige associated with the name of Pasteur. It was thus decided to add a subtitle beneath the English titles: “Established in 1887 as the “Annales de l’Institut Pasteur””. The journal’s cover and inside pages were modernized and more photos and illustrations were added.

In 1990, as a compromise, and to reassure certain Pasteurians and other scientists attached to the French language and Pasteurian values, the Institut Pasteur decided to found a new journal, the “Annales de l’Institut Pasteur/Actualités”, with an editorial slant close to that of the original Annales. This journal, entirely in French and destined for the French medical and scientific community, was meant to reflect the activities of the Institut Pasteur and its network. During its first three years, the publication, directed by Georges Cohen, published review articles in fundamental biology along with subjects having medical applications. In 1994, it underwent a revamping and became thematic, and up until 2003 it consecrated its issues to themes such as AIDS, tuberculosis, vaccinology and allergies.

Of the three journals which came into being in 1989, only “Research in Microbiology”, direct descendant of the Annales de l’Institut Pasteur, still exists. In 1998, “Microbes and Infection” replaced Research in Immunology, Research in Virology and the Bulletin de l’Institut Pasteur. Stefan Kaufmann became Editor in Chief. That journal publishes advanced research in all fields of infection and immunity and is of special interest to immunologists, microbiologists, virologists and molecular biologists (Table 3).

7. Conclusion

The Annales, which have borne witness to the evolution of Pasteurian disciplines and research, had for many years fulfilled the role which was assigned to them at their origin—that of a publication responsible for taking note of and presenting results produced in the Institute’s laboratories.

Over that 120-year-period, they have published numerous original works in the field of biological sciences. They have gone through decades of scientific research and have adapted to the development and diversification of Pasteurian disciplines. They have accommodated changes in the way scientists carry out their research and have done their utmost to coexist with global standardization of the production of scientific knowledge. They have undergone intense editorial restructuring. They have caused upheaval and change in the French scientific community by taking on an English title and publishing articles entirely in English.

Today, and despite all these changes, they are still being published, under the title, “Research in Microbiology”. They remain faithful to their principle mission, as defined by their founders: the spread of scientific knowledge at home and abroad.

References

- [1] Delaunay, Albert (1962) L’Institut Pasteur des origines à aujourd’hui. Ed. France – Empire, Paris, p. 52
- [2] Duclaux, Emile Mme (1906) La vie d’Emile Duclaux. L. Barnéoud, Laval, p. 210

- [3] Fournier, Jacques (1968) Les Annales de l'Institut Pasteur, Bulletin – Association des anciens élèves de l'Institut Pasteur, 38, 286-287
- [4] Gingras, Yves (2002) Les formes spécifiques de l'internationalité du champ scientifique, Actes de la recherche en sciences sociales, 1-2, 141-142, 31-45
- [5] Pasteur, Louis (1887) Lettre sur la rage. Bordighera, le 27 décembre 1886, Ann. Inst. Pasteur, 1, 1-2
- [6] Pasteur, Louis (1888) Sur la destruction des lapins en Australie et dans la Nouvelle-Zélande, Ann. Inst. Pasteur, 2, 1-8
- [7] Pasteur, Louis (1888) Sur le premier Volume des Annales de l'Institut Pasteur, et en particulier sur un Mémoire de MM. Roux et Chamberland, intitulé « Immunité contre la septicémie, conférée par des substances solubles », C. r. Acad. Sci., 106, 320-324
- [8] Pasteur Vallery-Radot, Louis (Ed.) (1951) In : Correspondance de Pasteur. Flammarion, Paris, 4, 175

Table 1. Members of the Editorial Committee of the Annales between 1887 and 1904

Name	Function	Date of entry on the Committee
Calmette, Albert (1863-1933)	Director of the Institut Pasteur de Lille	1899
Chamberland, Charles (1851-1908)	Head of a department at the Institut Pasteur	1887
Chantemesse, André (1851-1919)	Head of a laboratory at the Institut Pasteur	1904
Duclaux, Emile (1840-1904)	Assistant Director of the Institut Pasteur	1887
Grancher, Joseph (1843-1907)	Professeur at the Faculté de Médecine	1887
Laveran, Emile (1845-1922)	Member of the Institut de France	1903
Metchnikoff, Elie (1845-1916)	Assistant Director	1887
Nocard, Edmond (1850-1903)	Directeur of the Ecole vétérinaire d'Alfort	1887
Roux, Emile (1853-1933)	Head of a department at the Institut Pasteur	1887
Straus, Isidore (1845-1896)	Professeur at the Faculté de Médecine	1887
Vaillard, Louis (1850-1935)	Professeur at the Ecole d'Application du Service de Santé, Val-de-Grâce	1897

Table 2. Publications of the « Instituts Pasteurs d’Outre-Mer » (1906-1948)

Name	Date of publication	Editor
Archives de l’Institut Pasteur de Tunis	1906-1920	Institut Pasteur de Tunis
Archives de l’Institut Pasteur de l’Afrique du Nord	1921-1922	Institut Pasteur d’Algérie
Archives, Instituts Pasteur d’Indochine	1922-1941	Archives Instituts Pasteur d’Indochine
Archives de l’Institut Pasteur de Tunis	1923-1942 1955-	Institut Pasteur de Tunis
Archives de l’Institut Pasteur d’Algérie	1923-	Institut Pasteur d’Algérie
Archives de l’Institut Pasteur Hellénique	1923-	Institut Pasteur Hellénique
Archives de l’Institut Pasteur du Maroc	1932-	Institut Pasteur du Maroc
Archives de l’Institut Pasteur de Tananarive (later to become the Archives de l’Institut Pasteur de Madagascar)	1939-1953 1954-	Institut Pasteur de Madagascar
Archives de l’Institut Pasteur de la Guyane et du Territoire de l’Inini	1940-1975	Institut Pasteur de la Guyane Française
Archives de l’Institut Pasteur de la Martinique	1948-1976	Institut Pasteur de la Martinique
Annales de l’Institut Pasteur de Lille	1948-1971	Ed. médicales Flammarion

Table 3. Les Annales de l'Institut Pasteur between 1887 and 2007

Name	Date of publication	Publisher
Annales de l'Institut Pasteur	1887-1972	Masson
Bulletin de l'Institut Pasteur	1903-1998	Masson
Annales de Microbiologie	1973-1984	Masson
Annales d'Immunologie	1973-1984	Masson
Annales de l'Institut Pasteur/ Immunology	1985-1988	Elsevier
Annales de l'Institut Pasteur/ Microbiology	1985-1988	Elsevier
Annales de l'Institut Pasteur/Virology	1985-1988	Elsevier
Research in Immunology	1989-1998	Elsevier
Research in Microbiology	1989-	Elsevier
Research in Virology	1989-1998	Elsevier
Annales de l'Institut Pasteur/ Actualités (Review)	1990-2003	Elsevier
Microbes and Infection	1999-	Elsevier
Annales de l'Institut Pasteur/ Actualités (Collection)	2000-2004	Elsevier