PREFACE TO THE THIRD EDITION

The second edition of this volume being exhausted in an unexpectedly short time, the third edition could not follow immediately, as much time had to be devoted for a thorough revision for this new edition.

The whole work has been thoroughly revised, many chapters largely rewritten and many new subjects of importance have been added, e.g., antiquity of Hindu and Greek systems of medicine, filterable viruses and virus diseases, arthropoda, snakes, shock, fever, Hodgkin's disease, diseases of blood, tuberculosis of the lung, pneumothorax, cholera and cholera kidney, peptic ulcers, and such diseases of unknown causation as beriberi, epidemic dropsy and pellagra.

In this edition a great economy of space has been effected by using two different sizes of types and also by putting typescript by the side of the figures. The portions printed in smaller type are intended for those desiring detailed study. Over 50 new illustrations have been added in this edition.

I express my grateful thanks once more to my respected Chief, Prof. Charu Chandra Bose, for his valuable guidance and encouragement and also to Doctors Manindra Nath Dey, Jogesh Chandra Mukherjee, Haran Chandra Banerjee, Nirod Baran Mandal, Hara Prasanna Bhattacharjee, Hemendra Nath Chatterjee, Sushil Kumar Basu and Prabhash Chandra Rakshit for going through the manuscript and proof. I wish also to express my thanks to Doctors Jitendra Nath Maitra, Profulla Kumar Mitra and Nirod Baran Mandal for supplying new pictures for this edition.

Calcutta,
The 1st July, 1932. 

Dhirendra Nath Banerjee.
PREFACE TO THE SECOND EDITION

The second edition of this book is long overdue, the first edition being out of print for more than a year. The very favourable reception of the first edition has been most gratifying.

Its object is the same as that of the first edition. In this edition it has been my endeavour to bring the book up to date. Great advances have been made in our knowledge in recent years and an attempt has been made to introduce this new knowledge without changing to any extent the general arrangement of the book.

Two new chapters have been added, viz., "Evolution of Pathology" and "Incidence of Infections Diseases with special reference to India." Some of the chapters, especially those on disturbances on circulation and metabolism, have entirely been re-written.

Many old illustrations have been omitted and more than eighty new ones introduced. It is a noticeable feature that some of the illustrations are entirely novel, in that this sort of figures appears for the first time in any text-book. These are the total frozen sections as invented by Dr. Christeller, for the study of histo-topography. We are usually accustomed to having a microsection $\frac{1}{4}'' \times \frac{1}{4}''$ in size, while a size of one inch square is rather unusual. Dr. Christeller has found out a method by means of which the whole organ e.g., the liver, lung, kidney or spleen, can be cut in such a thin slice by frozen method that it can be mounted on a suitable slide (one cleared photographic plate serves best) and after staining by the desired method—hæmatoxylin-eosin, van Gieson, Weigert's elastic, etc.—it can be mounted with Canada balsam as a permanent specimen with a mica foil serving the purpose of a cover glass. These sections are so thin that one can use oil-immersion lens for examination of finer structures. This method, which Christeller terms as histo-topographic method, is a distinct advance in histo-pathology.

I had the privilege of working with Dr. Christeller at Berlin and the figures illustrated in this edition are from specimens prepared by myself at his laboratory.

With a heavy heart we hear the sad news of the death of two of my teachers in Germany, whose names are well-known amongst the scientists of the world, one of them being Dr. Christeller whose death
took place at the very early age of 30, and the other Prof. Unna.* This year has taken the toll of yet another scientist—Prof. Widal.

I had the proud privilege of having been the first and at the same time the last one from India to make pilgrimage to Prof. Unna’s clinic at Hamburg and work with him.

* Paul Gerson Unna, the greatest Dermatologist and Histologist of modern times, died in his 79th year in 1929. He was born on 8th September, 1850 in Hamburg. He had his general education at Hamburg after which in 1870 he went to Heidelberg, one of the oldest German Universities, to commence his medical studies. He completed his course of studies at Strassburg where he submitted his thesis for the doctor’s degree on the development of the skin. The special feature, which was a novelty at that time, was the staining reaction of the different cellular and tissue elements which form the basis of Unna’s work. Von Recklinghausen, his examiner, who upheld a different view, being of the opinion that the staining reactions were only to cloak the power of observation and hence of little importance, objected to the thesis but had to yield subsequently. These obstructions and uncharitable remarks to the young scientist, who became an M.D. when he was only 25 years of age, gave him the stimulus which led to the unparalleled development of the histopathology under the able hands of Unna.

Prof. Unna used to say to the present writer that it was the objections of Von Recklinghausen to accommodate his thesis that had stimulated him to follow this path, so as to show to the world at large the importance and utility of staining reaction in scientific research.

Unna visited numerous foreign countries and so came in direct touch with the leading dermatologists of the time notably Hansen of Norway with whom he worked on leprosy and our present knowledge on histo-pathology of leprosy is mainly due to him. He met Sir Malcolm Morris and published in collaboration with him the International Atlas of Rare Diseases. He thus gained the highest esteem and appreciation from all the countries, and was invited almost every year to all the leading associations of the world.

He is the father of numerous specific staining reagents for different tissue elements. In 1890 he first described the plasma cells which are called after him. He introduced ichthyol, Unna’s paste and other therapeutic agents for the treatment of skin diseases.

His name is at the top as the author of scientific papers published not only in number, but without exception, of epoch-making importance.

The British Medical Journal rightly remarks: “It is no exaggeration to say that Unna has done more than any other single person for the advancement of the speciality to which he devoted his long life, and to which he has been faithful right up to the end.”

The Lancet further remarks: “With the death of Unna, in his seventy-ninth year, there passes the last of a long series of German and Austrian dermatologists that began with Hebra and Kaposi, and produced such geniuses as Neisser. He had lived so long that his name had become a tradition—a tradi-
The very interesting figures of neurofibroma are taken from the conjoined paper published by Dr. Christeller and myself in Virchow’s *Archiv f. Path. Anatomic*.

During his life he published more than 600 papers in the period of 54 years of which a very large number are of outstanding merit. Of these several are of special interest. These are Histology and development of the human skin and its appendages (published in 1876), Histo-pathology of the Skin (1894), and Histo-chemistry of the Skin (1927). He founded in 1882 and was also the most important and regular contributor of one of the first-class journals of the day—the "Dermatologisches Wochenschrift." In 1897 he published the atlas of the pathological histology of the skin which was completed in 1910 in 9 volumes.

When I went to him he showed me his book "Histo-pathology of Skin" published in 1894, i.e., about 35 years ago and containing 1224 pages As at that time the German language was too difficult for me he helped me with a copy of Norman Walker's translation of that book published in the English language in 1896. I was astonished to see that many chapters on histo-pathology of skin diseases as written by a German as far back as 1894 and existing in English language since 1896 were so exhaustive that even various tropical diseases mentioned in this book have not yet been corroborated in the British Empire or in any other part of the world.

For the last 20 years he was working on the subject of chromolysis, by which the chemical constitution of the different component elements of a cell can be very easily determined. For example, the nucleus, the nucleolus, and other cell structures can be specifically stained by Pappenheim-Unna method with pyronin and methyl-green. By using some different dissolving agent, e.g., distilled water, NaCl (2 per cent.), HCl (5 per cent. and 15 per cent.), it is found that some of the component elements have been dissolved by one or the other of these agents, and by staining them again by Pyronin and methyl-green we find these elements missing. From these properties one can determine the chemical composition of these different structures.†

On the wall of his laboratory there was a chart on chromolysis which was the result of 20 years' work of Prof. Unna, which gives us an idea of the laborious task that these pioneers have got to perform, the fruits of which are utilised by us in several hours.

† An idea on this very interesting subject of chromolysis can be obtained from the following articles of the present writer:

In this edition more than 150 pages of reading matter and over 80 illustrations have been added. All this has added greatly to the cost of publication, but in consideration of the well-known poverty of our students, for whom the book is primarily intended, the price has not been enhanced, but has, as before, been kept at Rupees Twelve only.

Calcutta,
The 1st June, 1929. DHIRENDRA NATH BANERJEE.
PRÉFACE TO THE FIRST EDITION

This book has been written primarily with the object of publishing a comprehensive text book on pathology and bacteriology intended for the medical students. It is difficult to select a text book for students from the existing ones as no one book includes all the different subjects inseparable from the scope of pathology, namely bacteriology, animal parasitology, laboratory methods, laboratory diagnosis of infectious diseases, transmission problems, pathological explanation of signs and symptoms of diseases. Attempts have been made to cover comprehensively the above subjects, at the same time discussing more fully the pathology of diseases common in this country.

As such, the book will also serve a useful purpose of ready reference for general practitioners.

The plan of the work has been on the following lines. All the diseases have been discussed upon the basis of etiology, laboratory diagnosis, morbid anatomy, morbid histology, morbid physiology and their terminations. No attempt has been made to describe systematically all the diseases occurring in individual organs on anatomical basis, hence there is no division into general and special pathology.

To make the book comprehensive, details of experiments, theories, subject matters of comparatively little interest to students and description of rare and unimportant conditions have been omitted as far as practicable.

Diagnostic methods which are best and suitable for application have been mentioned, leaving aside those which are unimportant or difficult for the students to pick up.

Free use of standard text books and periodicals on pathology, bacteriology and medicine as well as the works on special subjects have been made.

Illustrations:

All the photographs are taken from patients of the Carmichael Medical College Hospital, Pathological Museums of both the Carmichael Medical College and the Calcutta Medical College, and from collections of numerous friends in the profession.

All the microphotographs, skiagrams and several photographs of museum specimens are the work of the author himself. Some of the diagrams will be found to have novel illustrative features.

Calcutta,
1st May, 1925.

DHIRENDRA NATH BANERJEE.