

1954-2024: 70 years of histochemical research with the European Journal of Histochemistry

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ABSTRACT

This Editorial celebrates the 70th anniversary of the *European Journal of Histochemistry* since its foundation as *Rivista di Istochimica Normale e Patologica*, and introduces a Special Collection of selected articles on the application of the histochemical approach for investigating cell biological features and processes in animals and plants, and under diseased conditions. The year 2024 is a special one for histochemists, as 100 years ago J.W. Robert Feulgen and H. Rossenbeck introduced the histochemical procedure for the specific stoichiometric staining of DNA in histological samples: to commemorate this influential publication, three papers in the present issue are devoted to the application of the Feulgen reaction at light and electron microscopy, and in cytometry.

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It is 70 years since Prof. Maffo Vialli, a pioneer of the histochemical studies in Italy, founded in Pavia our journal under the title *Rivista di Istochimica Normale e Patologica*. It was the time when histochemistry was to become a central discipline in biology and medicine, and the histochemical journals started to be published in the United States and Europe (the *Journal of Histochemistry and Cytochemistry*, in 1953; *Acta Histochemica*, in 1954; and *Histochemie*, nowadays *Histochemistry and Cell Biology*, in 1958).

As we may read in the Editorial that opened the first issue of *Rivista di Istochimica Normale e Patologica*, the aim of the Editorial Board members was “to collect in a single journal most of the Italian histochemical production”, which at that time “was scattered in several specialized journals, depending on the specific subjects. In every field of biological research, the connection is apparent between biological and chemical processes which may be investigated by histochemical methods, and this new journal will not attempt to replace other journals in any field, but rather will be complementary to as many of them as possible”. Thus the journal was “opened to papers on histochemistry in its widest sense, including the *extra situm* techniques”, applied to “animal and plant biology as well as microbiology”.¹

The journal was (and still is) the official organ of the Italian Society of Histochemistry and was published in Italian until 1979, when the Society’s General Assembly decided to publish the articles in English and to change the journal’s title to *Basic and Applied Histochemistry*. Thus, the journal “was prepared to receive international contributions and aimed at promoting throughout the world the most advanced achievements of Italian histochemistry”.² At that time, Prof. Maffo Vialli still was the Editor in Chief and Prof. Maria Gabriella Manfredi Romanini the Editor; she then became Editor in Chief in 1984 and assiduously worked to make the journal more and more influential in the field of functional cytology and histology. Thanks to her firm motivation and tireless efforts, the journal increased its scientific reputation and progressed towards its present international readership.

In 1992, the journal finally became *European Journal of Histochemistry*, and Manfredi Romanini’s words in her Editorial introducing the first issue of volume 36 are still modern and enlightening: a scientific journal “must be the screen on which new data are projected and the forum for unfettered discussion of ideas, as well as for reciprocal criticism of the results obtained, of how they were achieved, and even of why it was useful or necessary to seek them, being an instrument for the worldwide diffusion of scientific information”.³ In this view, the *European Journal of Histochemistry* is published in Gold open access, since 2010.

The present celebratory issue is a Special collection of papers on the application of the histochemical approach for studying cell biology in animals and plants,⁴⁻⁶ and in diseased conditions,⁷ thus effectively showing the wide and multifaceted areas of interest of our journal.

There is another anniversary that makes the year 2024 a special one from a histochemical viewpoint: 100 years ago, in 1924, J.W. Robert Feulgen and H. Rossenbeck⁸ introduced the histochemical procedure (now commonly known as the Feulgen reaction) for the specific stoichiometric staining of DNA in histological samples, thus opening the way to the quantitative evaluation of DNA amount *in situ*. To celebrate this seminal publication, three papers in the present issue are devoted to the application of the Feulgen reaction at light and electron microscopy, and in cytometry:⁹⁻¹¹ the authors are among the pupils of the histochemical School founded by Maffo Vialli, and their papers will illustrate how the history of our journal and its development in time were tightly linked to the histochemical research performed in Pavia during the last seven decades.

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