The 40th FEBS Congress on the “The Biochemical Basis of Life” is organized jointly with the German Society for Biochemistry and Molecular Biology (GBM) and aims to bring together a broad spectrum of national and international Life Science researchers covering the major areas of Biochemistry and Molecular and Cell Biology. The congress is held in Berlin, a city that is particularly devoted to Science and Arts and is home to four universities and more than 60 science-related institutions. Scientists such as Humboldt, Einstein, Planck, Hahn, Koch, Ehrlich, Warburg, or Timofeev-Ressovsky and many others dubbed Berlin the “Capital of Sciences”.

On the occasion of the annual congress FEBS Letters traditionally assembles a Special Issue that intends to reflect the breadth of the scientific knowledge presented. The program, which spans some of the major areas of Molecular Biology, such as Mechanisms of Gene Expression, Membranes, Receptors, Bioenergetics, Structural Biology, Neuroscience and Molecular Medicine, is mirrored in this Special Issue by the contributions of eminent speakers. Some high profile reviews relate to the fields of RNA Biology and Molecular Neurobiology. Among these, you will find a review on the functional role of the Mael domain within the piRNA pathway [1], and another highlighting how mRNA metabolism can lead to severe neuronal diseases [2]. Another practical contribution provides the most accurate approaches for quantifying miRNAs and identifying their targets [3]. In the field of Neurobiology, we provide a perspective on the role of G-quadruplexes in neurodegenerative diseases [4], as well as reviews on the molecular mechanisms underlying neuronal regeneration [5] and the role of E3 ubiquitin ligases in neural development and synaptic transmission [6], topics of wide interest to neuroscientists and biochemists alike. Worth mentioning is also a review on how cells respond to viral infection via a complex integration of innate immunity with stress response pathways [7].

The Editors of this Special Issue therefore wholeheartedly express their gratitude to all authors, whose contributions enable congress participants as well as those who could not attend to view some of the congress highlights and at the same time provide a vision of the state-of-the-art and thought-provoking future perspectives.

References


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