



Preface—JES Focus Issue on the Brain and Electrochemistry Honoring R. Mark Wightman and Christian Amatore

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The Electrochemical Society held the Brain and Electrochemistry Symposium in October 2017 to honor the contributions of Christian Amatore and Mark Wightman to the field of bioelectrochemistry. The symposium focused on electrochemical research and developments related to studies of the brain as well as the central and the peripheral nervous systems. The five symposium sessions covered a broad range of topics including key areas of research activity where Amatore (electrophysiology) and Wightman (neurochemistry and electrochemical measurements of molecules) have made seminal contributions. To mark their retirement and acknowledge their extensive contributions to the field of bioelectrochemistry, we are delighted to dedicate this focus issue of the *Journal of The Electrochemical Society* to them both.

Christian Amatore received his training from the École Normale Supérieure in France. He obtained his PhD in 1979 under the guidance of J. M. Savéant and carried out a one-year postdoctoral fellowship in Jay K. Kochi's laboratory at the University of Bloomington (USA). Returning to France as a Centre National de la Recherche Scientifique (CNRS) researcher, he eventually became the Director of Research at CNRS. During his career, Amatore has mentored more than 60 PhD students. Combined with the contributions from post-doctoral fellows, Amatore's team has made a permanent imprint on the fields of mechanistic electrochemistry and electroanalytical chemistry applied to complex phenomena such as neurotransmitter release, convective systems, nanoscale electrochemistry, and high-speed electrochemistry. Amatore is a decorated scientist of international stature. He remains accessible, passionate, and a fierce debater, always mentoring and welcoming new scientists to the electrochemical community.

R. Mark Wightman was born in Dorset (England) in 1947 and obtained his bachelor of science degree at Erskine College (USA) in

1968. He continued his studies at the University of North Carolina – Chapel Hill (UNC-CH) under the supervision of Royce Murray and received a PhD in 1974. He then carried out a post-doctoral fellowship at the University of Kansas under the direction of Ralph N. Adams. In 1976, Wightman accepted a faculty position at Indiana University, Bloomington, quickly moving up the ranks to full professor in 1985. In 1989, he returned to his alma mater UNC-CH as the William R. Kenan Jr. Professor of Chemistry. Wightman has never shied away from the complexity of neurochemistry, supervising more than 100 PhD, MSc, and postdoctoral fellows, while constantly encouraging young scientists to tackle complex and difficult science. It is with great admiration that we recognize his contributions to the development of fast-scan voltammetric methods applied to neurotransmitter release.

The contributions of Amatore and Wightman to the advancement of bioelectrochemistry, specifically the advancement of electrochemical measurements in the field of neurochemistry, are impressive. Their dedication to the training of new generations of bioelectrochemists resulted in an established legacy of highly successful faculty and researchers worldwide. Several of the twenty-one research articles in this special issue are contributions from former students, postdocs, and colleagues exemplifying the research directions that Amatore and Wightman have molded. On behalf of all the authors and countless members of the electrochemistry community that have interacted with Amatore and Wightman, we wish them each a great and well-deserved retirement.

The editors thank the contributing authors, the reviewers for their time and diligent criticism, as well as the ECS staff, especially Beth Schademann, Paul Cooper, Annie Goedkoop, Beth Craanen, and Andrea Guenzel for making this issue a success.

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