Founded in 1877 by Felix Hoppe-Seyler as Zeitschrift für Physiologische Chemie

Felix Hoppe-Seyler (1825–1895) was a pioneer of biochemistry, remembered not only for his discovery of hemoglobin and his contributions to the chemical characterization of many other biological compounds and processes but also for having been the mentor of Friedrich Miescher and Albrecht Kossel. In his preface to the first issue of Zeitschrift für Physiologische Chemie, Felix Hoppe-Seyler coined the term Biochemistry (‘Biochemie’) for the then newly emerging discipline.
ABSTRACTED/INDEXED IN Academic OneFile (Gale/Cengage Learning), ASFA1: Biological Sciences & Living Resources, Biochemistry & Biophysics Citation Index, Biological Abstracts, BIOSIS Previews, CAB Abstracts, Calcium and Calcified Tissue Abstracts, Chemical Abstracts and the CAS databases, CSA Illustrata - Natural Sciences, CSA Neurosciences Abstracts, Current Contents/Life Sciences, Elsevier BIOBASE/Current Awareness in Biological Sciences (CABS), EMBASE - the Excerpta Medica database, EMBiology, Index Medicus/MEMLINE, Journal Citation Reports/Science Edition, Reaction Citation Index, Reference Update, Science Citation Index, Science Citation Index Expanded (SciSearch), Scopus, SIIC Data Bases, Zoological Record.

The Journal is associated with the Gesellschaft für Biochemie und Molekularbiologie e.V.

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ISSN 1431-6730 · e-ISSN 1437-4315 · CODEN BICHF3

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TYPESETTING Compuscript Ltd., Shannon, Ireland

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim

Printed in Germany

COVER ILLUSTRATION Carboxypeptidase M interactions with the B1 receptor facilitate kinin signaling. A model of carboxypeptidase M (CPM) and its potential membrane orientation and basal interaction with the B1 receptor (B1R) is shown in the left panel on the front cover. As discussed in the minireview by Zhang et al. on pp. 335–345 in this issue, bradykinin (BK) or kallidin released from kininogen precursors stimulates B1R signaling in two ways mediated by CPM (right panel): first, kinin binding as a substrate causes a conformational change in CPM that is transmitted via protein-protein interaction to the B1R. The resulting conformational change in the B1R results in G protein coupling and activation of calcium or nitric oxide (NO) signaling. Second, removal of the C-terminal Arg of BK (or kallidin) by CPM generates B1R agonists (e.g., des-Arg⁹-BK; DABK) that can further activate the associated receptor or additional B1Rs. These CPM/B1R interactions enhance receptor signaling at low kinin concentrations and would allow localized signaling, reducing unwanted distant effects that could occur if agonist was generated in blood or by another cell, requiring diffusion to cells expressing the B1R.

Drawing modified from Figure 12 in Zhang et al., J. Biol. Chem. 286 (2011), 18547-18561. © The American Society for Biochemistry and Molecular Biology.
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