

Literatur

Annual Review of Biochemistry, Vol. 89, 2020. Eds.: Roger D. KORNBERG, James E. ROTHMAN, JoAnne STUBBE, Jeremy W. THORNER. Palo Alto California, USA, Annual Reviews, 851 S., ISBN 978-0-8243-0889-6, ISSN 0066-4154.

Der vorliegende Band 89 beginnt mit einem Artikel von Carol V. ROBINSON mit dem Titel „Christopher Dobson, 1949-2019: Mentor, Friend, Scientist Extraordinaire“.

Weitere Übersichtsartikel zu folgenden Themenbereichen der Biochemie schließen sich an:

Standing on the Shoulders of Viruses (Ari HELENIUS); Ribonucleotide Reductases: Structure, Chemistry, and Metabolism Suggest New Therapeutic Targets (Brandon L. GREENE, Gyunghoon KANG, Chang CUI, Marina BENNATI, Daniel G. NOCERA, Catherine L. DRENNAN, JoAnne STUBBE); Synthetic Genomes (Weimin ZHANG, Leslie A. MITCHELL, Joel S. BADER, Jef D. BOEKE); Checkpoint Responses to DNA Double-Strand Breaks (David P. WATERMAN, James E. HABER, Marcus B. SMOLKA); Role of Mammalian DNA Methyltransferases in Development (Zhiyuan CHEN, Yi ZHANG); Imaging of DNA and RNA in Living Eukaryotic Cells to Reveal Spatiotemporal Dynamics of Gene Expression (Hanae SATO, Sulagna DAS, Robert H. SINGER, Maria VERA); Transcription in Living Cells: Molecular Mechanisms of Bursting (Joseph RODRIGUEZ, Daniel R. LARSON); Evaluating Enhancer Function and Transcription (Andrew FIELD, Karen ADELMAN); Dynamic Competition of Polycomb and Trithorax in Transcriptional Programming (Mitzi I. KURODA, Hyuckjoon KANG, Sandip DE, Judith A. KASSIS); Molecular Mechanisms of Facultative Heterochromatin Formation:

An X-Chromosome Perspective (Jan J. ZYLICZ, Edith HEARD); Long Noncoding RNAs: Molecular Modalities to Organismal Functions (John L. RINN, Howard Y. CHANG); Anti-CRISPRs: Protein Inhibitors of CRISPR-Cas Systems (Alan R. DAVIDSON, Wang-Ting LU, Sabrina Y. STANLEY, Jingrui WANG, Marias MEJDANI, Chantel N. TROST, Brian T. HICKS, Jooyoung LEE, Erik J. SONTHEIMER); How Is Precursor Messenger RNA Spliced by the Spliceosome? (Ruixue WAN, Rui BAI, Xiechao ZHAN, Yigong SHI); RNA Splicing by the Spliceosome (Max E. WILKINSON, Clément CHARENTON, Kiyoshi NAGAI); How Does the Ribosome Fold the Proteome? (Anais M.E. CASSAIGNAU, Lisa D. Cabrita, John CHRISTODOULOU); Detection and Degradation of Stalled Nascent Chains via Ribosome-Associated Quality Control (Cole S. SITRON, Onn BRANDMAN); Single-Molecule Studies of Protein Folding with Optical Tweezers (Carlos BUSTAMANTE, Lisa ALEXANDER, Kevin MACIUBA, Christian M. KAISER); Mechanisms of Mitochondrial Iron-Sulfur Protein Biogenesis (Roland LILL, Sven-A. FREIBERT); Mitochondrial Proteases: Multifaceted Regulators of Mitochondrial Plasticity (Sani DESHWAL, Kai Uwe FIEDLER, Thomas LANGER); Chemical Biology Framework to Illuminate Proteostasis (Rebecca M. SEBASTIAN, Matthew D. SHOULDERS); Quantifying Target Occupancy of Small Molecules Within Living Cells (M.B. ROBERS, R. FRIEDMAN-OHANA, K.V.M. HUBER, L. KILPATRICK, J.D. VASTA, B.-T. BERGER, C. CHAUDHRY, S. HILI, S. MÜLLER, S. KNAPP, K.V. WOOD); Structure and Mechanism of P-Type ATPase Ion Pumps (Mateusz DYLA, Magnus KJTERGAARD, Hanne POULSEN, Paul NISSEN); Structural and Mechanistic Principles of ABC Transporters (Christoph THOMAS, Robert TAMPÉ); Double the Fun, Double the Trouble: Paralogs and Homologs Functioning in the Endoplasmic Reticulum (Emma J. FENECH, Shifra BEN-DAR, Maya SCHULDINER); The Myosin Family of

Mechanoenzymes: From Mechanisms to Therapeutic Approaches (Darshan V. TRIVEDI, Suman NAG, Annamma SPUDICH, Kathleen M. RUPPEL, James A. SPUDICH); Zona Pellucida Proteins, Fibrils, and Matrix (Eveline S. LITSCHER, Paul M. WASSARMAN); HLA, TCRs, and KIRs, a Triumvirate of Human Cell-Mediated Immunity (Zakia DJAOU, Peter PARHAM); Biosynthesis and Export of Bacterial Glycolipids (Christopher A. CAFFALETTE, Jeremi KUKLEWICZ, Nicholas SPELLMON, Jochen ZIMMER); Mucins and the Microbiome (Gunnar C. HANSSON); Current Understanding of the Mechanism of Water Oxidation in Photosystem II and Its Relation to XFEL Data (Nicholas COX, Dimitrios A. PANTAZIS, Wolfgang LUBITZ); Molecular Mechanisms of Natural Rubber Biosynthesis (Satoshi YAMASHITA, Seiji TAKAHASHI).

Somit ist der Band 89 des Annual Review of Biochemistry – wie die vorhergehenden – eine wertvolle Informationsquelle biochemischer Literatur. Außerdem sind die Abstracts der Artikel des Bandes 89 online unter <https://www.annualreviews.org/journal/biochem> verfügbar.

Die Redaktion

Annual Review of Plant Biology, Vol. 71, 2020. Eds.: Sabeeha MERCHANT, Wilhelm GRUISSEM, Donald ORT. Palo Alto California, USA, Annual Reviews, 816 S., ISBN 978-0-8243-0671-7, ISSN 1543-5008.

Band 71 beginnt mit einem einleitenden Artikel von Zhi-Hong XU mit dem Titel „A Bridge to the World“.

Folgende Übersichtsartikel aus dem Fachgebiet der Pflanzenbiologie schließen sich an:

Dynamic Construction, Perception, and Remodeling of Plant Cell Walls (Charles T. ANDERSON, Joseph J. KIEBER); Functions of Anionic Lipids in Plants (Lise C. NOACK, Yvon JAILLAIS); Mechanisms of Cryptochrome-Mediated Photoresponses in Plants (Qin WANG, Chentao LIN); Origin and Diversity of Plant Receptor-Like Kinases (Anne DIEVART, Céline GOTTIN, Christophe PÉRIN, Vincent RANWEZ, Nathalie CHANTRET); Redox Homeostasis and Signaling in a Higher-CO₂ World (Christine H. FOYER, Graham NOCTOR); Regulation and Evolution of C₄ Photosynthesis (Urte SCHLÜTER, Andreas P.M. WEBER); Starch: A Flexible, Adaptable Carbon Store Coupled to Plant Growth (Alison M. SMITH, Samuel C. ZEEMAN); The Small GTPase Superfamily in Plants: A Conserved Regulatory Module with Novel Functions (Erik NIELSEN); Guard Cell Metabolism and Stomatal Function (Tracy LAWSON, Jack MATTHEWS); Modeling Plant Metabolism: From Network Reconstruction to Mechanistic Models (Teresa J. CLARK, Longyun GUO, John MORGAN, Jorg SCHWENDER); Evolution of Plant Hormone Response Pathways (Miguel A. BLÁZQUEZ, David C. NELSON, Dolf WEIJERS); Evolution of Plant NLRs: From Natural History to Precise Modifications (Janina TAMBORSKI, Ksenia V. KRASILEVA); Rapid Auxin-Mediated Cell Expansion (Minmin DU, Edgar P. SPALDING, William M. GRAY); Salt Tolerance Mechanisms of Plants (Eva VAN ZELM, Yanxia ZHANG, Christa TESTERINK); Desiccation Tolerance: Avoiding Cellular Damage During Drying and Rehydration (Melvin J. OLIVER, Jill M. FARRANT, Henk W.M. HILHORST, Sagadevan MUNDREE, Brett WILLIAMS, J. Derek BEWLEY); Prospects for Engineering Biophysical CO₂ Concentrating Mechanisms into Land Plants to Enhance Yields (Jessica H. HENNACY, Martin C. JONIKAS); Molecular Mechanisms of Pollination Biology (Róisín FATTORINI, Beverley J. GLOVER); Reproductive Multitasking: The Female Gametophyte (Friederike RATER, Thomas NAKEL, Rita GROß-HARDT); Developmental Mechanisms of Fleshy Fruit Diversity in Rosaceae (Zhongchi LIU, Hong MA, Sook JUNG, Dorrie MAIN, Lei GUO);

Exploiting Broad-Spectrum Disease Resistance in Crops: From Molecular Dissection to Breeding (Wei LI, Yiwen DENG, Yuese NING, Zuhua HE, Guo-Liang WANG); Ancient Plant Genomics in Archaeology, Herbaria, and the Environment (Logan KISTLER, Vanessa C. BIEKER, Michael D. MARTIN, Mikkel WINTHER PEDERSEN, Jazmín RAMOS MADRIGAL, Nathan WALES); Exploring Uncharted Territories of Plant Specialized Metabolism in the Postgenomic Era (Joseph R. JACOBOWITZ, Jing-Ke WENG); Genetic Engineering and Editing of Plants: An Analysis of New and Persisting Questions (Rebecca MACKELPRANG, Peggy G. LEMAUX); Phenotyping: New Windows into the Plant for Breeders (Michelle WATT, Fabio FIORANI, Björn USADEL, Uwe RASCHER, Onno MULLER, Ulrich SCHURR); The Genomics of *Cannabis* and Its Close Relatives (I. KOVALCHUK, M. PELLINO, P. RIGAUT, R. VAN VELZEN, J. EBERSBACH, J.R. ASHNEST, M. MAU, M.E. SCHRANZ, J. ALCORN, R.B. LAPRAIRIE, J.K. MCKAY, C. BURBRIDGE, D. SCHNEIDER, D. VERGARA, N. C. KANE, T.F. SHARBEL); Sequencing and Analyzing the Transcriptomes of a Thousand Species Across the Tree of Life for Green Plants (Gane Ka-Shu WANG, Douglas E. SOLTIS, Jim LEEBENS-MACK, Norman J. WICKETT, Michael S. BARKER, Yves VAN DE PEER, Sean W. GRAHAM, Michael MELKONIAN); Engineering Synthetic Signaling in Plants (Alexander R. LEYDON, Hardik P. GALA, Sarah GUIZIOU, Jennifer L. NEMHAUSER); Novel Imaging Modalities Shedding Light on Plant Biology: Start Small and Grow Big (Natalie M. CLARK, Lisa VAN DEN BROECK, Marjorie GUICHARD, Adam STAGER, Herbert G. TANNER, Ikram BLILOU, Guido GROSSMANN, Anjali S. LYER-PASCUZZI, Alexis MAIZEL, Erin E. SPARKS, Rosangela SOZZANI).

Im Anschluss an das Inhaltsverzeichnis des Bandes 71 wird auf fachlich verwandte Beiträge in anderen „Annual Reviews“ verwiesen, beispielsweise:

Im **Annual Review of Biochemistry**, Volume 88 (2019):

Structure and Mechanisms of F-Type ATP Synthases (Werner KÜHLBRANDT).

Im **Annual Review of Cell and Developmental Biology**, Volume 35 (2019):

Developmental Responses to Water and Salinity in Root Systems (José R. DINNENY); Plant Cell Polarity: Creating Diversity

from Inside the Box (Andrew MUROYAMA, Dominique BERGMANN); Plant Noncoding RNAs: Hidden Players in Development and Stress Responses (Yu Yu, Yuchan Zhang, Xuemei Chen, Yueqin Chen); Im **Annual Review of Genetics**, Volume 53 (2019):

Cell Size Control in Plants (Marco D'ARIO, Robert SABLONSKI); Living with Two Genomes: Grafting and Its Implications for Plant Genome-to-Genome Interactions, Phenotypic Variation, and Evolution (Brandon S. GAUT, Allison J. MILLER, Danelle K. SEYMOUR).

Im **Annual Review of Phytopathology**, Volume 57 (2019):

Genome Editing, Gene Drives, and Synthetic Biology: Will They Contribute to Disease-Resistant Crops, and Who Will Benefit? (Kevin V. PIXLEY, Jose B. FALCK-ZEPEDA, Ken E. GILLER, Leland L. GLENNA, Fred GOULD, Carol A. MALLORY-SMITH, David M. STELLY, C. Neal STEWART JR.); Plant Virus Vectors 3.0: Transitioning into Synthetic Genomics (Will B. CODY, Herman B. SCHOLTHOF); Pathways of DNA Transfer to Plants from *Agrobacterium tumefaciens* and Related Bacterial Species (Benoit LACROIX, Vitaly CITOVSKY); Durability of Quantitative Resistance in Crops: Greater Than We Know? (Christina COWGER, James K.M. BROWN); Never Walk Alone: Clathrin-Coated Vesicle (CCV) Components in Plant Immunity (Gayani EKANAYAKE, Erica D. LAMONTAGNE, Antje HEESE); Molecular Interactions Between Smut Fungi and Their Host Plants (Weiliang ZUO, Bilal ÖKMEN, Jasper R.L. DEPOTTER, Malaika K EBERT, Amey REDKAR, Johana Misas VILLAMIL, Gunther DOEHLEMANN); Surviving in a Hostile World: Plant Strategies to Resist Pests and Diseases (Samuel W. WILKINSON, Melissa H. MAGERØY, Ana Lépez SÁNCHEZ, Lisa M. SMITH, Leonardo FURCI, T.E. Anne COTTON, Paal KROKENE, Jurriaan TON).

Unter <http://plant.annualreviews.org> kann die Buchreihe Annual Review of Plant Biology online genutzt werden.

Ebenso wie vorher erschienene Bände dieser Buchreihe bietet Band 71 des Annual Review of Plant Biology umfassende und wertvolle Informationen aus dem gesamten Forschungsgebiet der Pflanzenbiologie.

Die Redaktion