

The Art of Science Call for Images

New for 2011!

All current Society members attending the 2011 Annual Meeting are invited to submit entries to the first Biophysical Society image contest, *The Art of Science*. Aptly named, the contest aims to showcase the artistic side of scientific imaging. Images submitted for competition may be obtained using any imaging technique, and must have a connection to biophysical research. Judging will be based on scientific significance, originality, and artistic and/or visual impact of the images. The finalists' posters will hang in the exhibit hall at the Annual Meeting for all to see, and attendees will vote on their favorite images. The three images with the most votes win! The image submission site opens December 1. The contest is limited to the first 100 entries. This event is sponsored by Photometrics. Visit www.biophysics.org/2011meeting for details.



*Dynamic DNA Packaging
across Kingdoms:
Chromatin & Beyond*

July 5-8, 2011

Asilomar, California

**Abstract Submission Site and
Registration Now Open**

[www.biophysics.org/
2011chromatin](http://www.biophysics.org/2011chromatin)

Contents

| | |
|-------------------------------|----|
| Biophysicist in Profile | 2 |
| Annual Meeting | 4 |
| Subgroups | 7 |
| Public Affairs | 8 |
| Members in the News | 10 |
| Grants & Opportunities | 10 |
| Upcoming Events..... | 12 |

2012 Annual Meeting Program Committee Begins Planning

The 2012 Program Committee, co-chaired by *Sharona Gordon (left)* and *William Zagotta (right)*, both of the University of Washington, has already started developing the program for the 2012 Annual Meeting, which will be held in San Diego, California, February 25–29, 2012. The co-chairs will present the program to Council for approval when it meets in Baltimore in March. The 2012 Program Committee members are *Barbara Baird*, Cornell University; *Michael Cahalan*, University of California, Irvine; *Laura Finzi*, Emory University; *Tanja Kortemme*, University of California, San Francisco; *David Warshaw*, University of Vermont; *Michael Wiener*, University of Virginia; and *James Williamson*, Scripps Research Institute.

Officers

President

Peter Moore

President-Elect

Richard Aldrich

Past-President

Henry Lester

Secretary

Dorothy Beckett

Treasurer

Linda Kenney

Council

Nancy L. Allbritton

Olaf S. Andersen

Ivet Bahar

Michael D. Cahalan

Patricia Clark

Marco Colombini

Enrique De La Cruz

Laura Finzi

Angel E. Garcia

Susan P. Gilbert

Angela Gronenborn

Donald W. Hilgemann

Vasanthi Jayaraman

Antoinette Killian

Tanja Kortemme

David Millar

Steven Rosenfeld

Catherine Royer

Petra Schwille

Peter So

Michael Wiener

Biophysical Journal

Edward Egelman, Editor-in-Chief

Society Office

Ro Kampman, Executive Director

Newsletter

Alisha Yocum, Production

Erica Retrosi, Profiles & Editing

Ellen Weiss, Public Affairs

The Biophysical Society Newsletter (ISSN 0006-3495) is published twelve times per year, January-December, by the Biophysical Society, 11400 Rockville Pike, Suite 800, Rockville, Maryland 20852. Distributed to USA members and other countries at no cost. Canadian GST No. 898477062. Postmaster: Send address changes to Biophysical Society, 11400 Rockville Pike, Suite 800, Rockville, MD 20852. Copyright © 2010 by the Biophysical Society. Printed in the United States of America. All rights reserved.



Biophysicist in Profile

Bert de Groot

Bert de Groot, Principle Investigator of the Computational Biomolecular Dynamics Group at the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany, is a scientist in the truest sense of the word. “I have always been driven by curiosity, the drive to find out how things work, and to fix or improve things,” he says. In his current work exploring the functional dynamics of proteins, he also funnels much of his fierce scientific energy into his collaborations.

De Groot wasn't raised in a particularly science-oriented family. “I come from a merchant's nest,” he says. “My older brother studied physics, though, so he may have paved some of the way.” *Herman de Groot*, now developing database-driven web applications for the University of Groningen, is fond of his brother, who is five years his junior. “When we were young that was quite a difference,” he says. “But as we grew older, the difference became much smaller.” The two boys went fishing and played computer games together. They also attended the same small public high school, which “gave me a solid background in the basics and left lots of time for exploring individual interests,” the older de Groot says. Herman remembers his younger brother's fastidious approach to his schoolwork. “After an exam Bert always complained that it was so difficult, and he was very unsure whether he passed the exam or not,” he says. “But when the grades were handed out, he always had an 8 or higher”—out of 10. “He is very hard-working, and very serious about his work,” Herman adds.

De Groot's top grades and the realization that he preferred biochemistry to anything else he'd studied landed him at Groningen University, where “I was first introduced to the wonders of science and the contaminating enthusiasm of scientists,” he says. *Herman Berendsen*, then Professor of Biophysical Chemistry and de Groot's PhD mentor, had a patient way of guiding his mentee that stuck. Berendsen's “enormous width and depth of knowledge, his never-interfering, yet at the same time always-supporting attitude, his high scientific standard, his very warm personality, and his never answering questions with ‘no,’” says de Groot, “left a lifelong impression.”

After graduation, de Groot joined *Helmut Grubmüller's* lab in the Theoretical and Computational Biophysics Department at the Max-Planck-Institute for Biophysical Chemistry. “Amongst other applicants, Bert stood out in our email exchange following up our interview, asking very precise and thoughtful questions,” says Grubmüller. In Grubmüller's lab, de Groot joined the collaboration with *Andreas Engel* focusing on molecular dynamics simulations of water permeation through aquaporins. He refined early electron microscopy structures, forming the basis for the simulations, which revealed why aquaporins can be highly permeable for water, while at the same time being highly selective against

protons and ions. “Bert is bright, straightforward, and very open-minded, with an inexhaustible reservoir of enthusiasm and scientific curiosity,” notes Grubmüller.

This enthusiasm might have been misinterpreted. *Ulrich Zachariae*, now a colleague in the Theoretical and Computational Biophysics Department at the Max Planck Institute for Biophysical Chemistry, met de Groot on his very first day in the Grubmüller lab. “I remember him using the word ‘ambitious,’” Zachariae recalls, “and me getting a bit wary. I have since then frequently asked for his advice, and have always greatly benefited from it.” Their collaborations include the structure and dynamics of cardiac ion channels and protein-lipid interactions in membranes. “Bert’s guidance relies on fairness and openness, and he fosters excellent scientific work by his high scientific standards, continuous interest, and thought,” says Zachariae. “He has a great sense of humor and thus it has always been huge fun to work with him.”

De Groot’s research currently focuses on the mechanism of selectivity, gating, and inhibition of membrane channels; protein-protein recognition and aggregation; and collective dynamics underlying function. “Ideally, I see our research not only contributing to understanding nature’s nanomachines on a fundamental level,” he says, “but also to interact and interfere at the molecular level in pathological cases, for example by designing small molecule protein inhibitors.” His eagerness to collaborate and tendency toward hard work will make his vision a reality. “We will attempt to contribute both to making the methods of computational molecular biophysics more accurate and efficient, as well as to tackle challenging dynamical processes, such as conformational transitions underlying signal processing.”

Like any good scientist, de Groot embraces collaboration in his research. “To express an idea to a PhD student or postdoc, and to realize weeks or months later that it sparked an interest, a corresponding experiment has been devised, and the original hypothesis has been confirmed,” he says, “or, even better, that it needed to be revised and corrected,” is what makes the scientific process so exhilarating for him—especially in biophysics as an ever-

expanding field. “Over the years it will become more quantitative on the single molecule level, and interact more with other biological disciplines on the level of subcellular complexes,” he predicts. “I hope to be able to continue my research in a high-quality research environment that offers lots of opportunities for collaborations with experimental groups, in an environment with enthusiastic and capable coworkers and colleagues.”

De Groot has frequently found such collaborators at the Biophysical Society Annual Meeting. “The meetings provide a unique way to keep up-to-date, are a rich source of novel ideas, and an excellent way of meeting extraordinary scientists,” he says. “The BPS meetings are the de facto standard in our field, almost of the category: go there, and there’s no need to go anywhere else.” A frequent author in *Biophysical Journal*, he admits a partiality to it. “It is one of the few that publishes predictions. Predictions are an essential part of science,” he says.

Of biophysics itself, de Groot is enamored. “The marvelously efficient, elegant and nifty machinery that proteins display to fulfill their function at the nanoscale never fails to impress and inspire me,” he says. If he weren’t a scientist, there’s a good chance he would have started his own company. “Unfortunately there’s little spare time as a scientist to seriously be involved in a project like that,” he says. Instead, he uses what little spare time he has to experience life through traveling, cycling, books, and movies.

For a successful and fulfilling scientific career, de Groot recommends following your bliss. “Try to identify what aspects of science or your daily work are most enjoyable and satisfying and choose your projects, research direction, and research group accordingly,” he advises. “Science can be tough at times and then it’s important to be driven by inner motivation.” As de Groot did, go where the enthusiasm and the determined intellectual drive to discover why and how takes you—and you’re golden.



De Groot sightseeing in Faro, Portugal.

Annual Meeting

March 5–9, 2011
Baltimore, Maryland

Workshops

X-ray Free Electron Lasers and Biophysics

Chair: *Keith Hodgson*, Stanford University
Jerry Hastings, SLAC National Accelerator Laboratory
Henry Chapman, DESY, Hamburg, Germany
Keith Moffat, University of Chicago
Ilme Schlichting, Max Planck Institute, Heidelberg, Germany

Imaging and Mass Spectrometry

Chair: *Victoria Orphan*, California Institute of Technology
Linda Johnston, University of Ottawa, Canada
Andrew Ewing, Penn State
Claude Lechene, Harvard Medical School

Applications of Small Angle X-ray Scattering

Chair: *Tracy Nixon*, Penn State
John Tainer, Lawrence Berkeley National Laboratory
Tom Irving, Illinois Institute of Technology
Susan Krueger, NIST

Engineering Proteins and Fluorophores for Live Cell Sensors

Chair: *Klaus Hahn*, University of North Carolina at Chapel Hill
Alan Waggoner, Carnegie Mellon University
Phillippe Bastiaens, Max Planck Institute of Molecular Physiology, Dortmund, Germany
Jin Zhang, Johns Hopkins University School of Medicine

Barriers & Pathways in Protein Folding

Chair: *Tobin Sosnick*, University of Chicago
Mattias Rief, Technischen University Muenchen, Germany
Hue Sun Chan, University of Toronto, Canada
Benjamin Schuler, University of Zurich, Switzerland

Annual Meeting housing is open....
make your reservations today!



BPS has secured a housing block across several hotels in Baltimore. As a meeting attendee, it is important for you to book your hotel room in the BPS housing block to guarantee the best accommodations and most competitive nightly rates, and guarantees in the event of over-booking or construction.

Filling a room block is important to the Society because it provides a “report card” on the Society’s meeting sites. By establishing a history of always filling a room block, the Society is able to secure both competitive room rates and larger blocks in subsequent years. To make your reservation go to: www.biophysics.org/2011meeting. The Baltimore Hilton, the official Headquarters Hotel, is just connected to the Baltimore Convention Center.

2011 Career Center Schedule

Check out a career development workshop or sign up for a one-on-one résumé critique session with career consultant *Monica Weil* at the 2011 Annual Meeting's Career Center, open Saturday, March 5 through Wednesday, March 9. Get workshop descriptions and find out how to sign up for a résumé critique session at www.biophysics.org/2011meeting.



Saturday, March 5

12:30–6:40 PM One-on-One Résumé Critiques

Sunday, March 6

8:20–9:00 AM One-on-One Résumé Critiques
9:30–10:30 AM **Workshop:** *Your Job Search: Preparing for Success*
10:40–11:40 AM One-on-One Résumé Critiques
12:00–1:00 PM **Workshop:** *Creating a Competitive Résumé*
2:00–3:20 PM One-on-One Résumé Critiques
3:30–4:30 PM **Workshop:** *Interviewing for Results*
4:40–6:00 PM One-on-One Résumé Critiques

Monday, March 7

8:30–9:30 AM One-on-One Résumé Critiques
10:00–11:00 AM **Workshop:** *Wherever You Go, There You Are: Self-Reflection as a Career Tool*
11:30 AM–12:30 PM One-on-One Résumé Critiques
1:30–2:30 PM **Workshop:** *The Ins and Outs of Networking*
2:50–6:00 PM One-on-One Résumé Critiques

Tuesday, March 8

8:10–9:10 AM One-on-One Résumé Critiques
9:30–10:30 AM **Workshop:** *Creating a Competitive Résumé*
10:40–11:40 AM One-on-One Résumé Critiques
12:00–1:00 PM **Workshop:** *Interviewing for Results*
2:00–5:30 PM One-on-One Résumé Critiques

Wednesday, March 9

8:30–11:45 AM NEW! Rapid Résumé Review Process: 15-minute one-on-one sessions (12 appointments)



2011 Annual Meeting Education Sessions

The Education Committee is offering up another slate of informative events at the 2011 Annual Meeting. Whether you're a student, an early career scientist, or a senior scientist, you'll want to check them out.

Another installment of *The Basics, the Discoveries and the Controversies: Educational Workshop*, a series developed to examine big-picture issues in biophysics and to encourage collaboration between experts in various fields, will take place on



John Lemasters



Michael Edidin

on **Tuesday, March 8, from 1:30–3:00 PM**. *John Lemasters*, Medical University of South Carolina, and *Michael Edidin*, Johns Hopkins University, will speak on Membrane Structure and Bioenergetics. They'll discuss the most important things that all biophysicists should know about each field, what the consensus ideas are, and what the fights are about.

Are you faculty at a primarily undergraduate institution? Are you looking for funding to establish or maintain an active and productive undergraduate research laboratory? If you answered "yes" to either of these questions, don't miss *Funding Opportunities for Faculty at Predominantly Undergraduate Institutions (PUI)* on **Tuesday, March 8, from 12:30–2:00 PM!** *Kamal Shukla*, National Science Foundation, and *Jean Chin*, National Institute of General Medical Sciences, National Institutes of Health, will discuss funding sources and grants that are particularly open to faculty at undergraduate institutions.



Kamal Shukla



Jean Chin



Madeline Shea

The popular *Biophysics 101 Workshop* returns on **Monday, March 7, from 1:00–2:30 PM** to explore a new topic. In its second year, this series began as a way to educate the Society membership about fundamentals of various biophysical techniques. It is especially useful for undergraduate students and specialists in nonrelated areas. *Madeline Shea*, University of Iowa Carver College of Medicine, will be speaking. Other speakers and topic to be announced—stay tuned!

Annual Meeting Deadlines

Student Housing: November 19

Early Registration: January 9

Late Abstract : January 14

General Housing: January 29

Subgroups

Motility

Last year's motility subgroup session was very successful thanks to the hard work of *Susan Gilbert* and *Ken Taylor*. Large numbers of highly motile biophysicists were severely challenging the capacity of the auditorium. Next March in Baltimore, the Society has promised us a bigger room to accommodate all those interested in the latest news on motors, muscle, motility, and all else that drives us and other cells. In order to guarantee sufficient finances for our activities, please make sure to sign-up for the Motility Subgroup when you pay your dues. Because, regrettably, only a minority of you in attendance of the session are subgroup members, we had to raise the fee to \$20 this year (I am sure some of you noticed). This small fee goes to paying for subgroup costs, which mount quickly as we need to pay dearly for each microphone you use, projector you watch, and cookie you eat! The upcoming Subgroup Meeting will surely be just as entertaining and enlightening as every year's, with a keynote evening talk by *Joe Howard* and confirmed invited speakers *Carolyn Moores*, *Will Hancock*, *Justin Molloy*, *Toshio Ando*, *Leah Gheber*, *Richard Cheney*, and *Folma Buss*—and with all your questions. We will also be having a poster-highlights session next year to spotlight some of the great work our Motility students are doing. See you in Baltimore in March.

—*Jenny Ross* and *Christoph Schmidt*
Subgroup Co-Chairs

Nanoscale

The inauguration meeting of the Nanoscale Biophysics Subgroup, co-organized by *Alberto Diaspro* and *Sanford Leuba*, will begin with the business meeting at noon and the first speaker at 1:00PM on Saturday, March 5. We are delighted so far to have confirmed *Hermann Gaub*, *Stefan Hell*, *Jonas Korlach*, and *Rainieri Bizzari* as speakers.

Our ever expanding vision of Nanoscale Biophysics includes a realm of approaches in the range of nanometers to tens of nanometers. Confirmed speakers will discuss, among other things, the development of AFM-related techniques in biosciences, functional nanoassembly, realtime super-resolution of living cells, the design and engineering of fluorescent probes (organic dyes or fluorescent proteins) for in vivo studies with single event/single molecule resolution, and novel single molecule DNA sequencing methods using zero-mode waveguides. Additional speakers will be announced on the website.

We encourage meeting attendees to come to the symposium, join the subgroup, and attend the business meeting to vote on the bylaws, subgroup name, and elect officers.

—*Alberto Diaspro* and *Sanford Leuba*,
Acting Subgroup Co-Chairs

Find us on Facebook!

www.facebook.com/biophysicalsociety

Public Affairs

Embryonic Stem Cell Research's Future Uncertain

On August 23, federal district court judge *Royce Lamberth* ordered that federal funding of human embryonic stem cell (hESC) research stop. The opinion ordering the preliminary injunction issued in the case *Sherley v. Sebelius* stated that continued hESC research could cause two adult stem cell researchers “irreparable harm” and that it was banned under the 1996 Dickey-Wicker Amendment, which forbids federal funding of experiments that required the destruction of human embryos. Following an emergency filing by the Department of Justice, the US Court of Appeals for the District of Columbia September 9 issued a temporary administrative stay to the injunction issued by Judge Lamberth, meaning that NIH could continue both its intramural hESC projects and extramural application and grant process until further action is taken on the case.

While the Justice Department continues to work on the legal case in support of hESC, members of Congress renewed efforts to pass the Stem Cell Research Enhancement Act, introduced by Representative *Diana DeGette* (D-CO) in the House and Senator *Arlen Specter* (D-PA) in the Senate. The bill was originally introduced in the House in March 2010. DeGette was working with Congressional lawyers to ensure the bill language would nullify the Dickey-Wicker Amendment as well as codify the executive order President *Obama* issued in support of hESC research.

In addition, Appropriations Chairman *Tom Harkin* (D-IA) held a hearing on September 16 that examined the promise of hESC re-

search. NIH Director *Francis Collins* testifying at the hearing, expressed concern that the uncertainty caused by the legal proceedings is causing researchers to abandon research in this area and alter grant proposals rather than start a research project they cannot finish.

It was unclear at press time whether the House or Senate would vote on the stem cell legislation during the lame duck after the November elections.

2011 Federal Budget update

Yet again, Congress failed to pass the appropriation bills that provide funding for the federal government by the start of the 2011 fiscal year on October 1. Congress instead passed a continuing resolution to fund the agencies at the 2010 levels through mid-November, at which time they will reconvene for a lame duck session.

Tabak Appointed NIH Deputy Director

Lawrence A. Tabak, was appointed principal deputy director of the NIH by Director Francis Collins in August. Tabak has been the Director of the National Institute of Dental and Craniofacial Research since 2000. He also served as acting NIH deputy director in 2009 and most recently as the acting director of the Division of Program Coordination, Planning, and Strategic Initiative.

Tabak received his undergraduate degree from City College of the City University of New York, his DDS. from Columbia University, and both a PhD and certificate of proficiency in endodontics from the University of Buffalo.

Biophysical Society Comments on Regulations for Synthetic Biology

The Presidential Commission for the Study of Bioethical Issues is preparing a report for the President on whether new regulations are needed in synthetic biology in light of the May 2010 announcement that the Venter Institute has created a synthetic genome.

As part of the process, the Council requested input from the public.

The Biophysical Society's Public Affairs Committee prepared comments that were approved by the Executive Board and sent by Society President *Peter Moore* on behalf of Society.

In those comments, Moore wrote that "while the development of a synthetic genome was a newsworthy accomplishment, it did not raise any unprecedented ethical issues because it is not qualitatively different from much that has been done previously." Rather, the Board recommended that "in addition to (re-)examining the ethical issues that surround genetic engineering, the Commission should consider ways to enhance, broaden, and strengthen education in the biological sciences, including molecular biology ... It would also be useful if some mechanism could be found for heightening the sensitivity of biological scientists to ethical concerns that surround the work they do."

The Commission held a second meeting on synthetic biology in September and is expected to present its recommendations to the President this fall.

President's Advisors Make Recommendations to Improve STEM Education

The President's Council of Advisors on Science and Technology (PCAST) released a report on September 15 that included a plan for improvements in K-12 Science, Technology, Engineering, and Mathematics (STEM) education. In the report, *Prepare and Inspire: K-12 Education in Science, Technology, Engineering, and Math (STEM) for America's Future*, the President's advisors make specific recommendations to better prepare America's K-12 students in STEM subjects and also to inspire those students—including those underrepresented in STEM fields—to challenge themselves with STEM classes, engage in STEM activities outside the school classroom, and consider pursuing careers in those fields.

The report advises the federal government to:

- Recruit and train 100,000 great STEM teachers over the next decade;
- Recognize and reward the top five percent of the Nation's STEM teachers;
- Create 1,000 new STEM-focused schools;
- Use technology to drive innovation;
- Create opportunities for inspiration through individual and group experiences outside the classroom;
- Support the current state-led movement for shared standards in math and science.

In preparing the report and its recommendations, PCAST assembled a Working Group of experts in curriculum development and implementation, school administration, teacher preparation and professional development, effective teaching, out-of-school activities, and educational technology.

The report can be read in its entirety at <http://www.whitehouse.gov/administration/eop/ostp/pcast/docsreports>.

Members in the News



Denis Wirtz of Johns Hopkins University and Society member since 1998 was nominated a Fellow of the American Association for the Advancement of Science.



Xiao-Dong Zhang of the University of California, Davis, and Society member since 2005 received the 2010 Paul F. Cranfield Postdoc Award.

A. James Hudspeth (not pictured) of Rockefeller University and Society member since 1986 received the John and Samuel Bard Award in Medicine and Science from Bard College.

Grants and Opportunities

Name: Structural Biology of Membrane Proteins

Objective: This FOA issued by NIGMS, as well as NCI, NIA, NIDCD, NIDDK, NIDA, NIEHS and NHLBI, National institutes of Health, encourages grant applications from institutions/organizations that propose to develop research and methods to enhance the rate of membrane protein structure determination and to determine specific membrane protein structures.

Who May Apply: Individuals with the skills, knowledge, and resources necessary to carry out the proposed research are invited to work with their institution/organization to develop an application for support.

Submission Deadline: January 7, 2011

Web Link: <http://grants.nih.gov/grants/guide/pa-files/PA-10-228.html>

Name: Doctoral Dissertation Improvement Grants in the Directorate for Biological Sciences (DDIG)

Objective: The National Science Foundation awards Doctoral Dissertation Improvement Grants in selected areas of the biological sciences. These grants provide partial support of doctoral dissertation, allow doctoral candidates to participate in scientific meetings, to conduct research in specialized facilities or field settings, and to expand an existing body of dissertation research.

Application Deadline: November 19, 2010

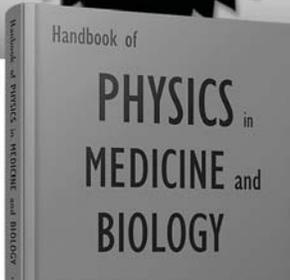
Web Link: http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5234&org=NSF&sel_org=NSF&from=fund

SAVE
20%
on these

How are emerging physics tools & techniques offering deep insight into biological functions & problems? *Find out in the...*

Latest Books on Biophysics

from  **CRC Press**
Taylor & Francis Group

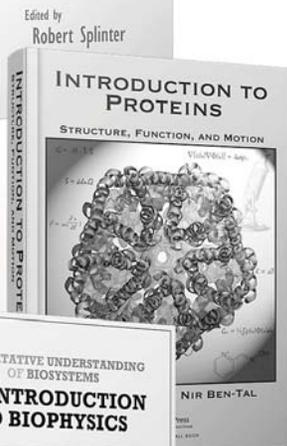


Handbook of Physics in Medicine and Biology

Edited by **Robert Splinter**

- A comprehensive treatment of the physics and physical chemistry of biological organisms as well as the physics of imaging and diagnostics
- Detailed coverage of physics relating to normal and pathological physiological functions
- State-of-the-art technology used in medical practice—highlights the growing emphasis on regenerative approaches

Catalog no. 75241, April 2010, 548 pp., ISBN: 978-1-4200-7524-3, \$149.95 / £95.00



Introduction to Proteins: Structure, Function, and Motion

Amit Kessel and Nir Ben-Tal

"... I was impressed both by the breadth of the topics covered and by the depth in which they are treated. General principles are made intuitively clear based on well-chosen examples, many of them having relevance to disease. ..."

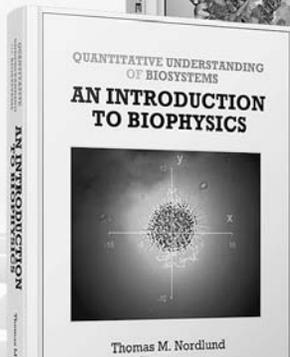
—Barry Honig, Columbia University, New York, New York, USA

"... The book gives a coherent picture of each topic ... useful for newcomers to the protein structure field who want to catch up quickly ... [and] easy for experts to dive into the more specialized aspects quickly. ..."

—Burkhard Rost, Technische Universität München, Germany

- More than 350 color images throughout
- Takes a structural–biophysical approach
- Download questions for each chapter at www.crcpress.com

Catalog no. K10533, October 2010, 644 pp., ISBN: 978-1-4398-1071-2, \$79.95 / £49.99

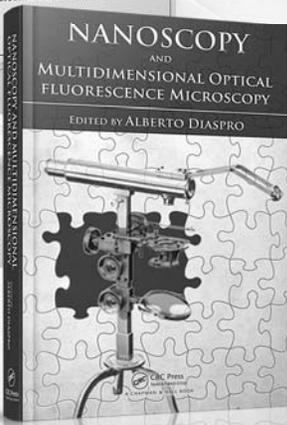


Quantitative Understanding of Biosystems: An Introduction to Biophysics

Thomas M. Nordlund

This text covers the biophysics of macromolecules and subcellular structures interactions with light from a quantitative point of view. The author emphasizes mathematical and computational approaches to study the properties and physical behavior of biomolecules and nanostructures.

Catalog no. 89772, December 2010, c. 864 pp., ISBN: 978-1-4200-8972-1, \$79.95 / £49.99



Nanoscopy and Multidimensional Optical Fluorescence Microscopy

Edited by **Alberto Diaspro**

"This book certainly appears at the right time ... The book should be useful for senior research students in optical microscopy and biophotonics." —Min Gu, Swinburne University of Technology, Melbourne, Australia

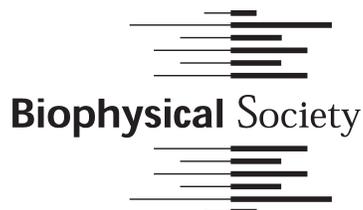
"A very useful book for the microscopy field. Alberto Diaspro has done a great job as editor, and I'm sure this book will be appreciated by its readers." —Peter Saggau, Baylor College of Medicine, Texas, USA

- Complete overview of new developments in optical microscopy
- A truly interdisciplinary perspective—combines the science and tools of biologists, physicists, and engineers

Catalog no. C7886, April 2010, 448 pp., ISBN: 978-1-4200-7886-2, \$129.95 / £82.00

Enter promo code **923JM** at checkout to **Save 20%**
when you order online at www.crcpress.com

Offer expires 1/31/2011



11400 Rockville Pike, Suite 800
Rockville, Maryland 20852

Presorted
First Class Mail
U.S. Postage
PAID
Suburban, MD
Permit No. 5460

Biophysical Society Newsletter—November 2010

Upcoming Events

February 11-16, 2011

*MicroRNAs and Non-Coding RNAs and Cancer joint with
MicroRNAs and Human Disease*

Banff, Alberta, Canada

www.keystonesymposia.org

March 5-9, 2011

Biophysical Society 55th Annual Meeting

Baltimore, Maryland

www.biophyscs.org/2011meeting

March 16-20, 2011

*EMBO|EMBL Symposia: Seeing is Believing, Imaging the
Processes of Life*

Heidelberg, Germany

www.embo-embl-symposia.org/symposia/2011

March 20-21, 2011

The Molecular Biology of Inflammatory Bowel Diseases

Durham, United Kingdom

www.biochemistry.org