



## **Moores UCSD Cancer Center Industry/Academia Translational Oncology Symposium Speaker Bios**

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### **David R. Bentley, D.Phil.**

Vice President & Chief Scientist, Illumina, Inc.

David Bentley, Ph.D., is Chief Scientist for Illumina's Sequencing business. His major research interest is the study of human sequence variation. He was previously Head of Human Genetics and founding member of the Board of Management at the Wellcome Trust Sanger Institute where he played leading roles in the Institute's contribution to the human genome referencing sequence, the SNP Consortium and the International HapMap Project.

Dr. Bentley earned a degree in Natural Sciences from the University of Cambridge, took a DPhil at the University of Oxford, and is currently a Fellow of the Academy of Medical Sciences.

### **Clara D. Bloomfield, M.D.**

Distinguished University Professor William G. Pace III Professor of Cancer Research  
Cancer Scholar and Senior Advisor, Ohio State University Comprehensive Cancer  
Center and James Cancer Hospital and Solove Research Institute

Education & Academic Appointments: 1968 M.D. U Chicago; 1973-80, Assistant, Associate Prof. of Medicine, U Minnesota (U. MN), Minneapolis, MN; 1980-89 Prof. of Medicine, Div. of Oncology, U.MN; 1989-97 Prof. of Medicine & Chief, Div. of Oncology, State University of NY at Buffalo; 1989-97 Chair, Department of Medicine, Roswell Park Cancer Institute (RPCI), Buffalo, NY; 1997-2001 Director, Div. of Hematology & Oncology, Department of Internal Medicine, The Ohio State University College of Medicine & Public Health (OSU COMPH), Columbus, OH; 1997- William G. Pace III Endowed Chair in Cancer Research & Prof, OSU; 1997-2003 Director, Comprehensive Cancer Center (CCC) & Deputy Director, James Cancer Hospital & Solove Research Institute (JCH), OSU; 2003- Cancer Scholar & Senior Advisor, OSUCCC & JCH; 2006- Distinguished University Prof. (highest academic honor at OSU awarded to only 35 faculty); 2007- Senior Advisor, The OSU Center for Clinical & Translational Science.

Honors and Awards (selected): 1971-75 American Cancer Society (ACS) Clinical Fellow & Junior Faculty Clinical Fellow; 1981 The Marion Spencer Fay Award, The Medical College of Pennsylvania; 1987 Past State President's Business & Professional Women's Award, U Texas, M.D. Anderson; 1989 Elected External Member, Medical Society of Finland; 1995 Elected Fellow, American Association for the Advancement of Science, Cytogenetic Research; 1998 Distinguished Service Award, U Chicago, Medical & Biological Sciences Alumni Association; 2000 Expression of Appreciation (OSU Board of Trustees); 2000 Elected Member, Institute of Medicine of the National Academy of Sciences; 2003 The John Peter Minton, MD, Hero of Hope Research Champion Medal of Honor (ACS); 2004 Local Legend Honor, American Medical Women's Association & National Library of Medicine; 2004 Joseph H. Burchenal Clinical Research Award, American Association for Cancer Research (AACR); 2004 Elected Member, Association of American Physicians; 2005 Charlotte Friend Memorial Lecture, International Association for Comparative Research on Leukemia & Related Diseases (IACRLRD); 2006 ASCO Distinguished Service Award for Scientific Achievement (American Society of Clinical Oncology); 2006 Cancer & Leukemia Group B (CALGB) 50th Anniversary Leadership Award; 2007 1st Annual Dr. Emil Frei III Pioneer Award (The Leukemia & Lymphoma Society); 2007 ASCO Statesman Award; 2008 Henry M. Stratton Medal (American Society of Hematology).

Recent Leadership Roles (selected): 1991-94 Board of Directors (BOD) ASCO; 1995-98 BOD AACR; 1997- BOD, National Comprehensive Cancer Network (NCCN); 2000- International Advisory Board, German Medical Competence Network of Acute & Chronic Leukemias of German Federal Ministry for Education & Research; 2004-05 General Motors Cancer Research Foundation Awards Assembly; 2006-07 President, Association for Patient-Oriented Research; 2006- External Advisory Board, European Leukemia-Net; 2007- President, IACRLRD; 1982-99 Chair, Correlative Sciences for Leukemia & Lymphoma, CALGB; 1982- BOD CALGB; U.S. National Institutes of Health: 1991-95 Member & Chair (1993-95), Board of Scientific Counselors (BSC), Div. of Cancer Treatment, NCI; 1995-98 Member, NCI Cancer Prevention & Control Working Group (WG), WG to review the NCI's Clinical Trials Program, & Developmental Diagnostics WG; 1996-98 Member, BSC, Division of Clinical Sciences, NCI; 2000-01 Co-chair, NCI Progress Review Group on Leukemia, Lymphoma and Myeloma; World Health Organization (WHO) Classification of Tumours of the Hematopoietic & Lymphoid Tissues: 1999-2001 Chair, Clinical Advisory Committee (CAC) WHO 2001; 2006-08 Chair, Myeloid Neoplasms and Acute Leukemia CAC WHO 2008.

Research Summary: Dr. Bloomfield's 37 years of groundbreaking clinical research on adult leukemia and lymphoma, described in over 470 articles, have changed the way we think about these diseases and treat these patients. Her work has resulted in the understanding that leukemia and lymphoma are a heterogeneous group of genetic diseases and that the biologic characteristics of the cancer cell should be used to classify the type of leukemia/lymphoma and to select treatment for the individual patient. Her work has translated into new internationally accepted classification systems for these disorders and personalized therapy, allowing each patient to receive the most effective

and least toxic therapeutic approach. Her approach to managing these patients has now been incorporated into the major clinical practice guidelines in oncology. In sum, her work has had an enormous and worldwide impact substantially improving the outcome of these once invariably fatal diseases and to cure for a substantial fraction of patients.

Additional Contributions: Bloomfield has particular expertise in fostering translational/multi-disciplinary research, training and retention of clinical investigators, and advancement of women in academic medicine. She has created one of the strongest clinical and translational research programs in hematological malignancy nationally/internationally. In CALGB, by fostering close collaboration between laboratory and clinical investigators, she developed the most widely emulated model for successful integration of laboratory studies into cooperative group clinical trials. Nationally instrumental in developing strong academic medical oncology training programs and academic clinical researchers, she has set rigorous standards for academic training in medical oncology. She has worked tirelessly for increased funding for clinical investigators. She chaired the subcommittee on retaining and recruiting clinical scientists within the NCI Clinical Trials Working Group. Long an advocate of advancing women in academic medicine, she was the first female Full Professor of Medicine at U. MN, only woman to chair the NCI DCT BSC, one of the few female department of medicine chairs (RPCI), and one of the first female NCI-designated comprehensive cancer center directors (OSU). She has been instrumental in developing university policy guidelines on equal employment and other issues for women. Although her work does not fall within a strict definition of Quality and Outcomes of Care, the focus of her clinical research has been to apply biologic and molecular markers to stratify patients with leukemia so that every patient receives the most efficacious treatment.

## **Frank J. Calzone, Ph.D.**

Executive Scientific Director, Hematology and Oncology, Amgen

Frank Calzone Ph.D. is an Executive Scientific Director in Amgen Hematology and Oncology Research. He led the team that isolated and developed the AMG 479 anti IGF-1R antibody therapeutic to the first-in-human portal. His current responsibilities include scientific support of AMG 479 clinical development, and discovery of new antibody drug candidates for cancer and regenerative medicine. Frank joined Amgen in 1993 as a founding member of a genomics-based initiative focused on the identification of novel human protein therapeutics. The notable success of this program was the isolation of osteoprotegerin (OPG) and the identification of its central role in regulating bone density in mice. This Amgen discovery led to the development of Denasumab which is a fully human anti RANKL monoclonal antibody awaiting FDA approval for the treatment of osteoporosis and bone lesions in cancer. Frank received his Bachelors degree in Genetics from Cornell University in 1975, and his Doctoral degree in Molecular, Cellular and Developmental Biology from the University of Rochester in 1982. His postdoctoral study at the California Institute of Technology was focused on the genomic regulatory systems controlling embryonic lineage-specific gene activation in the sea urchin. Before joining Amgen, Frank was an assistant professor of Cell and Developmental Biology at the

University of California, Irvine from 1989 to 1994. Frank Calzone is a member of the Amgen Ventures Scientific Advisory Board. He is actively involved in breast cancer research advocacy and he has served as a member of the DOD Breast Cancer Research Program integration panel for several years.

## **Dennis Carson, M.D., Ph.D.**

Director, Moores UCSD Cancer Center

Dr. Carson is a noted researcher in the field of lymphoproliferative diseases. He developed the drug Cladribine, which is the treatment of choice for hairy cell leukemia marketed as Leustatin®. He has played key roles in the founding of Vical, Inc., a gene therapy company, Dynavax Technologies, a biopharmaceutical company, Triangle Pharmaceuticals, an anti-virus company; and Salmedix, an anti-cancer company. Dr. Carson is Director of Rebecca and John Moores UCSD Cancer Center and has been a Professor in the Department of Medicine at the University of California, San Diego since 1990. He has published nearly 450 scientific papers and is an inventor on more than 60 U.S. and international patents. He was elected to the National Academy of Science in 2003. Prior to joining UCSD, he was a Member in the Department of Molecular and Experimental Medicine at The Scripps Research Institute. He received his B.A. from Haverford College and M.D. from Columbia University.

## **David Cheresh, Ph.D.**

Associate Director for Translational Research and Professor of Pathology, Moores UCSD Cancer Center

Dr. Cheresh is a leading expert in tumor angiogenesis and metastasis. He has developed a number of drugs that target tumors or the tumor vasculature. Dr. Cheresh developed the first integrin antagonists to be clinically tested in cancer patients. These inhibitors of integrin avb3 have shown efficacy in Phase II trials. He is the founder of TargeGen Inc a company that develops small molecule kinase inhibitors of angiogenesis, vascular leak and cancer. TargeGen developed three drugs being tested clinically for myocardial infarction, age-related macular degeneration and cancer. Dr. Cheresh has recently founded a new company, Kinagen which develops small molecule drugs based on a rationale design approach. Dr. Cheresh is the Associate Director for Translational Research at the Moores Cancer Center and the Vice Chair for Research in the Dept of Pathology at UCSD. Dr. Cheresh is among the top five most cited scientists in the field of angiogenesis research and has received numerous awards for his work. Prior to joining UCSD in 2005, he spent 23 years at the Scripps Research Institute where he rose through the ranks from postdoctoral fellow to Professor in the Dept of Immunology. Dr. Cheresh received his BS degree from the University of Michigan and received his MS and Ph.D degrees from the Dept of Immunology and Microbiology at the University of Miami School of Medicine.

## **Thomas O. Daniel, M.D.**

President, Research, Celgene

Dr. Daniel joined Carbon Capture as an advisor at its inception and is now a principal investor. A former Professor of Medicine and Cell Biology at Vanderbilt University, he led large research & development organizations at leading biotech companies, Immunex and Amgen. In 2003, as Chief Scientific Officer and Director, he built and led a venture backed startup, Ambrx, through technology implementation, manufacturing and initiation of clinical trials, raising approximately \$100M in capital to manufacture optimized protein medicines. Currently, he is President, Research for Celgene. He obtained his MD degree from UT Southwestern, trained at Massachusetts General Hospital, and was funded by the Howard Hughes Medical Institute and NIH.

## **Gary S. Firestein, M.D.**

Professor of Medicine, Chief, Division of Rheumatology, Allergy and Immunology, Dean, Translational Medicine, UCSD

Dr. Gary S. Firestein received his A.B. degree summa cum laude from Harvard College in 1976 and subsequently received his M.D. degree from Johns Hopkins University School of Medicine in 1980. After training in Internal Medicine at UCLA, he began his Rheumatology fellowship at UCSD in 1983. In 1988, he joined the faculty at UCSD School of Medicine as Assistant Professor of Medicine. Four years later, Dr. Firestein was hired by Genzia, Inc. as Director of Immunology where he supervised drug discovery efforts focusing on the potential role of purines in inflammation. In 1996, he returned to UCSD and, in 1998 was named Professor of Medicine and Chief of the Division of Rheumatology, Allergy and Immunology. In 2008, Dr. Firestein was named Dean of Translational Medicine at UCSD.

Dr. Firestein's research interest has focused on the pathogenesis of rheumatoid arthritis and mechanisms of inflammation. He was among the first to map the synovial cytokine profile of RA and demonstrate the dominance of macrophage and fibroblast products. These studies contributed to the development of the highly effective anti-TNF approaches to RA. Dr. Firestein has also studied the role of aggressive synoviocyte behavior in RA as a mechanism of joint destruction and implicated tumor suppressor genes mutations in the pathogenesis of disease. His laboratory has also worked extensively on signal transduction pathways as potential therapeutic targets. His studies identifying the key signaling molecules regulating synovial inflammation served as pivotal proof of concept studies for targets like IKK $\beta$  and JNK. In addition, he has directed a number of innovative clinical studies for the treatment of rheumatoid arthritis, osteoarthritis, systemic lupus erythematosus, and scleroderma, and autoinflammatory syndromes with a focus on developing novel biomarker studies. In 1998, Dr. Firestein received the prestigious Carol-Nachman Prize, which is an international award given for outstanding contributions to rheumatology research. In 2006, he received the Lee C. Howley Sr Prize

for Arthritis Research by the Arthritis Foundation. He has been elected to the American Society for Clinical Investigation and the Association of American Physicians.

Dr. Firestein has written over 220 articles and chapters and has edited or written several books. He served as the Deputy Editor of *Arthritis & Rheumatism* and is currently the Editor-in-Chief of the *Kelley Textbook of Rheumatology*. Dr. Firestein founded the UCSD Center for Innovative Therapy to promote translational research in inflammatory and autoimmune diseases and in 2003 was named the founding Director of the UCSD Clinical Investigation Institute. He also served as a chairman of the FDA Arthritis Advisory Committee for two years

### **Neil W. Gibson, Ph.D.**

Chief Scientific Officer, Oncology Research, Pfizer

Dr. Gibson has recently been appointed as Chief Scientific Officer, Oncology Research at Pfizer. In this role Dr. Gibson will represent Research as a member of the Therapeutic Area Leadership Team and be involved in providing strategic direction for the various Oncology Discovery efforts ongoing at Pfizer. Between 2005-2007 Dr. Gibson was the Chief Scientific Officer of OSI Pharmaceuticals (OSIP). Dr. Gibson began his career at OSIP in January 2001 as Senior Director, Cancer Discovery and served as the Vice President, US Research (2002) and Vice President of Research (2002-2005). Dr. Gibson industry experience has also included service as Director for Cancer Research in the Department of Cancer and Osteoporosis at the Bayer Corporation (1997-2001) and as Senior Research Investigator at Pfizer Inc. (1993-1997). Dr. Gibson has also held numerous academic appointments including Associate Professor, School of Pharmacy and Comprehensive Cancer Center, University of Southern California (1990-1993) and Fogarty Fellow at the National Cancer Institute, National Institutes of Health. During his career Dr. Gibson has served on the Experimental therapeutics Study Section of the National Cancer Institute and he has also been actively involved with the American Association of Cancer Research and is a Past President of the British Pharmaceutical Students Association.

### **Danelle F. James, M.D.**

Clinical Instructor of Medicine, Moores UCSD Cancer Center

Danelle F. James, M.D. is a new junior faculty member at UCSD in the Division of Hematology and Oncology at the Rebecca and John Moores UCSD Cancer Center. Dr. James has honed a focus in translational research targeting the interactions between leukemia cells and their tumor microenvironment. Dr. James has led the development of several early phase clinical studies with rigorous biologic corollary work to understand the mechanism(s) and pharmacodynamics of therapeutic interventions for leukemia. Dr. James was honored for her efforts in 2008 by the American Society of Clinical Oncology with a Young Investigator Award.

## **Catriona Jamieson, M.D., Ph.D.**

Director, Stem Cell Research Program, Assistant Professor of Medicine, Moores UCSD Cancer Center

Catriona Jamieson is the Director of the Stem Cell Research Program at the Moores UCSD Cancer Center, a hematologist-oncologist and stem cell biologist. She received her BSc in Biology (Genetics) from the University of British Columbia as well as her PhD in Microbiology and MD. After completing a residency program in Internal Medicine, she trained at Stanford University Medical Center in bone marrow transplantation and hematology. She became an attending hematologist at Stanford in 2003, following a post-doctoral stem cell biology research fellowship in the laboratory of Dr. Irving L. Weissman, and joined the UCSD faculty of medicine in November 2005.

At UCSD, she has continued to build on her national and international reputation for her translational research on stem cells and cancer particularly in the area of hematologic malignancies. She was the first recipient of a California Institute for Regenerative Medicine Grant to derive and characterize cancer stem cells from embryonic stem cells, has received a number of awards and honors, including the Forbeck Scholar Award, has numerous patents and publications, was elected Vice-Chair (2009) followed by Chair of the Stem Cells and Cancer Gordon Conference (2011). She has been invited to speak at a number of meetings including a plenary talk at the American Association of Molecular Pathologists Meeting, in the Scientific Subcommittee at the American Society of Hematology in addition to special symposia on stem cells and Cancer at the American Association of Cancer Research meeting and American Society for Clinical Oncology meetings.

## **Arnold Levine, Ph.D.**

Professor, Institute for Advanced Study, Simons Center for Systems Biology, School of Natural Sciences; Professor of Pediatrics and Biochemistry, Cancer Institute of New Jersey, University of Medicine and Dentistry

Arnold J. Levine, Professor in The Simons Center for Systems Biology, School of Natural Sciences, Institute for Advanced Study, is a leading authority on the molecular basis of cancer and co-discover of the p53 tumor suppressor protein, one of the body's most important defenses against many forms of cancer.

Levine first isolated the p53 protein in 1979. P53 was originally thought to be an oncogene, or tumor accelerator, but Levine and his colleagues later showed that it is, in fact, a tumor suppressor--it prevents cancer. Other scientists went on to show that a mutation in p53 is the single most common genetic change in human cancers, including those of the breast, lung, colon, prostate, bladder and cervix. Levine and colleagues characterized and identified a version of p53 in the fruit fly, an important model organism for the study of a host of human diseases, including cancer. And Levine is a pioneer in the use of DNA microchip arrays, which can analyze the interactions of thousands of genes at one time, to study cancer.

Born in Brooklyn, N.Y., Levine received a B.A. from Harpur College, SUNY, in 1961 and a Ph.D. from the University of Pennsylvania in 1966. After postdoctoral work at the California Institute of Technology, he joined Princeton in 1968 as an assistant professor, becoming a professor of biochemistry in 1976. In 1979, Levine moved to the SUNY Stony Brook School of Medicine to chair the Department of Microbiology. He returned to Princeton in 1984. Between 1984 and 1996, he presided over a major expansion of Princeton's life sciences programs as chairman of the Department of Molecular Biology. Levine was President of The Rockefeller University, from 1998 to 2002.

Levine helped shape U.S. science priorities as chairman of an influential 1996 review panel on federal AIDS research funding. He also chaired the National Cancer Advisory Board, which advises the National Academy of Sciences and its Institute of Medicine on cancer policy. Levine was elected to the National Academy of Sciences in 1991 and to its Institute of Medicine in 1995. In April 2001, Levine received the first Albany Medical Center Prize in Medicine and Biomedical Research, the largest annual prize in science or medicine offered in the United States. The prize honors a physician or scientist whose work has led to significant advances in health care and scientific research.

Levine has received numerous awards in addition to the Albany Medical Center Prize, including the 2008 Kirk A. Landon-AACR Prize for Basic Cancer Research, the 2005 Bristol-Myers Squibb Freedom to Discover Award and the 2001 Alfred Knudson Award in Cancer Genetics from the National Cancer Institute. In 2000, he received the Keio Medical Science Prize from the Keio University Medical Science Fund in Japan, and the Medal for Outstanding Contributions to Biomedical Research from the Memorial Sloan-Kettering Cancer Center. He was named co-recipient of the 1999 Louisa Gross Horwitz Prize from Columbia University, and he received the 1999 General Motors Cancer Research Foundation's Charles F. Kettering Prize for the most outstanding recent contribution to the diagnosis or treatment of cancer. In 1998, he received the Paul Ehrlich and Ludwig Darmstaeder Prize, the Bertner Award from the University of Texas M. D. Anderson Cancer Center and Eli Lilly's Clowes Award. Among his other awards are the 1993 Katharine Berkan Judd Award from Memorial Sloan-Kettering Cancer Center, the 1994 Bristol-Myers Squibb Award for Distinguished Achievement in Cancer Research and the first Strang Award from the Strang Cancer Prevention Center, also in 1994.

## **John Mendelsohn, M.D.**

President, University of Texas M.D. Anderson Cancer Center; Professor of Cancer Medicine, The University of Texas, M.D. Anderson Cancer Center

John Mendelsohn, M.D., combines experience in clinical and laboratory research with administrative expertise for guiding The University of Texas M. D. Anderson Cancer Center in the 21st century.

Since becoming president in 1996, he has recruited a visionary management team and implemented new priorities for integrated programs in patient care, research, education and cancer prevention. Under his direction, M. D. Anderson has been named the top



cancer hospital in the nation five out of the past eight years in U.S. News & World Report's "America's Best Hospitals" survey.

For almost three decades, Mendelsohn has been at the forefront in understanding how growth factors regulate the proliferation of cancer cells by activating receptors on the surface of the cells. These receptors, when activated, control key cell signaling pathways. He developed a specific monoclonal antibody called Erbitux™, which blocks the activity of the receptor for epidermal growth factor. Clinical research trials have demonstrated that therapy combining this antireceptor antibody with chemotherapy or radiation is effective treatment for patients with several forms of cancer. On February 12, 2004, the FDA approved Erbitux™ for treatment of advanced colorectal cancer.

## **Beverly S. Mitchell, M.D.**

George E. Becker Professor of Medicine Director, Stanford Cancer Center

Dr. Mitchell is an internationally respected physician scientist whose research relates to the development of new therapies for cancers of the blood. She has a long-standing interest in using an enzyme (IMPDH) as a therapeutic target and has published extensively on using enzymes in the treatment of leukemia in preclinical and clinical research and trials.

Beverly S. Mitchell, MD, is the Director of the Stanford Cancer Center, and is the George E. Becker Professor of Medicine at Stanford University. Her research relates to the development of new therapies for hematologic malignancies. She has a long-standing interest in IMPDH as a therapeutic target and has published extensively on the regulation of this enzyme and the potential role of inhibitors in the treatment of leukemia in preclinical and clinical investigations.

Dr. Mitchell received an undergraduate degree in biochemistry from Smith College in Massachusetts and received an MD from Harvard Medical School. She completed medical training as Chief Resident at the University of Washington. After a research fellowship at the Metabolic Laboratory at the University of Zurich in Switzerland, she was awarded a Hematology Fellowship at the University of Michigan. Dr. Mitchell was a faculty member in the Departments of Medicine and Pharmacology at the University of Michigan for 16 years before moving to University of North Carolina. Dr. Mitchell led the Molecular Therapeutics Program at UNC Chapel Hill's Lineberger Comprehensive Cancer Center, where she also served as associate director for Translational Research and chief of the Division of Hematology/Oncology. She joined the Stanford faculty in 2005 as the Deputy Director of the Stanford Cancer Center.

Dr. Mitchell has authored over 120 peer-reviewed articles. She served as president of the American Society of Hematology (ASH), and on the Boards of the Leukemia and Lymphoma Society and the Burroughs Wellcome Fund. She is a member of the Institutes of Medicine.

## **Perry Nisen M.D., Ph.D.**

Senior Vice President Cancer Research GlaxoSmithKline

Perry Nisen, M.D., Ph.D. is currently Senior Vice President, Cancer Research at GlaxoSmithKline. Previously, he was Senior Vice President, Clinical Pharmacology and Discovery Medicine. He is co-chair of the Global Safety Board and is a member of the Scientific Advisory and Technology Investment Boards. Perry's leadership of the GlaxoSmithKline R&D globalization strategy led to the establishment of an end-to-end research and development center in Shanghai. He holds a B.S. from Stanford University and M.D. and Ph.D from the Albert Einstein College of Medicine. Formerly, he was the Lowe Foundation Professor of Neuro-oncology at the University of Texas Southwestern School of Medicine, then Divisional Vice President, Cancer Research at Abbott Laboratories. He is on the Executive Committee of the NIH-PhRMA-FDA Biomarker Consortium and is the Woodward Visiting Scholar at Harvard University.

## **Greg R. Reyes, M.D., Ph.D.**

Senior Vice President, Oncology Research and Development, Biogen Idec

Greg Reyes, M.D., Ph.D. has nearly 25 years of experience in biotechnology and the pharmaceutical industry. He has held senior leadership roles at companies like Cyclacel, Pfizer and Schering-Plough. He currently holds the position of Senior VP for Oncology Research and Development with Biogen Idec at their San Diego campus.

After obtaining his M.D. and Ph.D. at Johns Hopkins in Baltimore, MD he did medical and postdoctoral training at Stanford's University hospital and then with the late Henry Kaplan at his Cancer Biology Research Lab as a Damon Runyon Cancer Research fellow. His career in industry has spanned virus 'discovery' and characterization (non-A, non-B viruses and gastroenteritis agents) to small molecule and biologics drug discovery and development in a number of different therapy areas.

Greg has also been active as an advisor and past member of a number of senior advisory councils including the National Advisory General Medical Sciences (NAGMS) Council, Past Chair of the External Advisory Committee to the International Outreach Program (IOP), St. Jude Children's Research Hospital and past member of the Standing Review Committee for Research Centers in Minority Institutions (RCMI), National Center for Research Resources, National Institutes of Health.

## **Duane Roth**

Chief Executive Officer, Connect

Duane J. Roth is Chief Executive Officer and member of the Board of CONNECT. CONNECT is the globally recognized public benefits organization fostering entrepreneurship in the San Diego region by assisting new business formation of technology and life sciences companies. CONNECT has been directly involved with over 1,500 companies since its inception in 1985 and these companies have secured over \$10 billion in funding.

Prior to joining CONNECT; Mr. Roth founded Alliance Pharmaceutical Corp., where he currently serves as Chief Executive Officer and Chairman of the Board. Prior to Alliance, Mr. Roth held senior management positions at Johnson & Johnson and Wyeth operating companies. He has served as a member of the Board of Directors and executive committees of the Biotechnology Industry Organization (BIO), the California Healthcare Institute (CHI), BIOCUM (past Chair), Deep Sky Software Inc., SAIC-Frederick, Inc. at the National Cancer Institute, and National Conflict Resolution Center (Co-Chair).

Mr. Roth serves on a number of advisory committees and boards of the University of California, including the President's Board on Science and Innovation, the UC San Diego Sulpizio Cardiovascular Center (past Chair), the Skaggs School of Pharmacy and Pharmaceutical Sciences, the Preuss Charter School (Chair), the California Institute for Telecommunications and Information Technology (Calit2), the Health Sciences advisory board and the UC San Diego Foundation Board of directors (past Chair). He also serves on the San Diego State University College of Business (past Chair), and the Sciences & Engineering Advisory Board. Mr. Roth is a member of the Executive Board for the California State University (CSU) Professional Science Master's Program.

Mr. Roth is active in the San Diego community serving as co-Chair of the Regional Housing Working Group, and as a member of the Advisory Council for Math for America. Mr. Roth was appointed to the Independent Citizens Oversight Committee for the California Institute of Regenerative Medicine (CIRM) by Governor Arnold Schwarzenegger and he also serves as a member on the Governor's Commission for Jobs and Economic Growth. Mr. Roth is a graduate of Iowa Wesleyan College, where he serves as a trustee.

Mr. Roth has received numerous awards and recognition including Lifetime Achievement Award from San Diego's Most Admired CEOs, Public Service Award from Sidney Kimmel Cancer Center, Service to the Biotechnology Community Award from PriceWaterhouseCoopers, Outstanding Leadership Award, from American Heart Association, and Herb Klein Civic Entrepreneur Award from San Diego Regional Economic Development Corp.

## **Roger Tsien, Ph.D.**

Professor of Chemistry and Biochemistry, Department of Pharmacology, UCSD

Roger Y. Tsien was born in New York City in 1952 and received his A.B. in Chemistry and Physics summa cum laude from Harvard College in 1972. A Marshall Scholarship then took him to the Physiological Laboratory at the University of Cambridge, where he received his Ph.D. in 1977 and remained as a Research Fellow until 1981. He then became an Assistant, Associate, then full Professor in the Dept. of Physiology-Anatomy at the University of California, Berkeley. In 1989 he moved to the University of California, San Diego, where he is an Investigator of the Howard Hughes Medical Institute and Professor in the Depts. of Pharmacology and of Chemistry & Biochemistry. His honors include 1st prize in the Westinghouse Science Talent Search (1968), Searle Scholar Award (1983), Passano Foundation Young Scientist Award (1991), W. Alden Spencer Award in Neurobiology from Columbia University (1991), Artois-Baillet-Latour Health Prize (1995), Gairdner Foundation International Award (1995), American Heart Association Basic Research Prize (1995), Faculty Research Lectureship at UCSD (1997), the Herbert Sober Lectureship of the American Society of Biochemistry and Molecular Biology (2000), the Pearse Prize of the Royal Microscopical Society (2000), and Award for Creative Invention from the American Chemical Society (to be presented in Apr. 2002). He was elected to the Institute of Medicine in 1995, the National Academy of Sciences in 1998, and the Royal Academy in 2006. In 2008 he was awarded the Nobel Prize in Chemistry, along with Osamu Shimomura and Martin Chalfie, for his work with developing Green Fluorescent Protein into a tool that is now used by researchers around the world, in many disciplines, to view the inner workings of cells.

Dr. Tsien's research has been at the interfaces between organic chemistry, cell biology, and neurobiology, starting long before such interdisciplinary efforts became fashionable. He is best known for designing and building molecules that either report or perturb signal transduction inside living cells. These molecules have enabled many laboratories including his own to gain new insights into signaling via calcium, sodium, pH, cyclic nucleotides, nitric oxide, inositol polyphosphates, membrane potential changes, protein phosphorylation, active export of proteins from the nucleus, and gene transcription. The optical reporter molecules are also valuable in miniaturized high-throughput screening of candidate drugs in the pharmaceutical industry. In addition to his traditional emphasis on trying to understand how the spatial and temporal dynamics of signal transduction orchestrate complex cellular responses such as synaptic plasticity, Dr. Tsien is currently working on the design of molecules which specifically target cancer cells to deliver either imaging agents or therapeutics, greatly improving upon the specificity of current therapies.