

Inventors of the Year

Dragan Maksimovic is an Associate Professor of Electrical and Computer Engineering, College of Engineering and Applied Sciences, University of Colorado at Boulder. After receiving his B.S. in 1984 and M.S. in 1986 in Electrical Engineering from the University of Belgrade, Yugoslavia, he studied at the California Institute of Technology, Pasadena to earn his Ph.D. in Electrical Engineering in 1989. A CU faculty member since August 1992, his current research is in Power Electronics and Mixed-Signal IC Design for power management, the enabling technologies for smart and efficient utilization of conventional and renewable energy sources. In 1997 he received NSF CAREER Award, and IEEE Power Electronics Society Transactions Prize Paper Award. He co-founded industry-supported Colorado Power Electronics Center (CoPEC) in 1998, where through research and education, faculty and students create new modeling methods, control techniques and high-efficiency converter approaches for the power electronics industry.

Dr. Maksimovic teaches undergraduate and graduate courses in microelectronic circuits, analog IC design and power electronics. He is a reviewer for NSF and several IEEE publications, and since 2003 he has served as an Associate Editor for *IEEE Transactions on Power Electronics*. In 2001, he contributed to the second edition of the textbook *Fundamentals of Power Electronics*. He received the Bruce Holland Excellence in Teaching Award from ECE Department in 2004.

Regan Zane is an Assistant Professor of Electrical and Computer Engineering, College of Engineering and Applied Sciences, University of Colorado at Boulder. He received the Ph.D. from the University of Colorado, Boulder, in 1999, then joined GE Global Research in Niskayuna, NY. At GE, he developed custom integrated circuit controllers for power management in electronic ballasts and lighting systems. In 2001 he returned to CU-Boulder as a faculty member, where he has ongoing research programs in energy-efficient lighting systems, adaptive and robust power management systems, and low power energy harvesting for wireless sensors and biomedical devices.

Dr. Zane teaches undergraduate and graduate courses in analog and mixed-signal integrated circuits and power electronics. He received the NSF Career Award in 2004 for his work in energy efficient lighting systems and the 2005 IEEE Microwave Best Paper Prize for his work on recycling microwave energy. He currently serves as Associate Editor for *IEEE Power Electronics Letters*.

Dr. Zane has published over 30 peer-reviewed conference and journal papers, holds two US patents with one patent pending and six invention disclosures in progress.

He is currently working with the CU-TTO office on IP in the areas of wireless energy harvesting for biomedical sensors, backlighting solutions for wide-screen LCD-TV, and power solutions for next generation microprocessors. He was recently awarded a TTO Proof-of-Concept award for commercialization of the energy harvesting IP together with a start-up company, Innovative Bio-Devices.

Terrance Boulton came to the University of Colorado at Colorado Springs in 2003 from Lehigh University. Dr. Boulton is the El Pomar Endowed Chair of Communication and Computations and networking and Professor Computer Science at UCCS. As the El Pomar chair, he works with the Colorado Institute for Technology Transfer and implementation working with faculty and local companies to develop and transfer technology in the Colorado Springs area.

Dr. Boulton's ongoing research projects include advanced visual security systems, design and evaluation of weather effects on facial recognition, and algorithms for efficient use of wireless networks. Dr. Boulton has published over 120 papers and holds six patents. He has disclosed seven inventions since coming to UCCS, and is the founder of Securics, Inc. based on biometric security technology created at CU. Securics received CU Proof of Concept (POC) investment program funding in 2005. Dr. Boulton serves as Chair of the CU Committee for University Discoveries, and has educated his colleagues at UCCS about the technology transfer process. He also teaches a course on Technology Transfer, IP, and Patents for Engineering.

Robert Garcea came to CU in 1993 and is a Professor in the Pediatrics Department of the University of Colorado Denver and Health Sciences Center, with joint appointments in Cell and Structural Biology and Microbiology. He is also Chief of Hematology-Oncology at the Children's Hospital. Dr. Garcea received his B.A. in Chemistry from Harvard College in 1970 and earned his M.D. from the University of California at San Francisco in 1974. Dr. Garcea studies the use of recombinant viral proteins for immunization against various diseases.

Dr. Garcea recently received a Global Health Grant from the Bill and Melinda Gates Foundation to develop an inexpensive therapeutic vaccine for human papillomavirus by training the immune system to recognize the protein marker that HPV leaves behind as it infects cells. He is working with investigators from Georgetown University, the German Cancer Research Center and the Ludwig Cancer Institute to develop this "next generation" vaccine to treat and prevent infections by human papillomaviruses in third world countries. This work complements his continuing work on capsomere vaccines both to treat and prevent human papilloma virus infection and other diseases such as malaria and cancer.

Pinnacles of Inventorship Award

Frank Barnes is Distinguished Professor, Electrical and Computer Engineering, University of Colorado at Boulder.

Terrance Boulton, El Pomar Endowed Chair of Communication and Computation and Professor of Computer Science, University of Colorado at Colorado Springs. Dr. Boulton was a 2004 New Inventor of the Year.

Steven George, Professor, Chemistry and Biochemistry and Chemical and Biological Engineering. Dr. George was a 2004 Inventor of the Year from the Boulder campus.

Jean Hertzberg, Associate Professor, College of Engineering and Applied Science University of Colorado at Boulder. Dr. Hertzberg was a 2004 New Inventor of the Year.

V. Michael Holers, Professor, School of Medicine, Rheumatology, University of Colorado at Denver and Health Sciences Center. Dr. Holers was the 2004 Inventor of the Year from the Denver and Health Sciences Center campus.

Karen Newell Rogers, Associate Professor, Biology, and Chief Executive Scientific Director, CU-Institute of Bioenergetics, University of Colorado at Colorado Springs. Dr. Newell Rogers was the 2004 Inventor of the Year from the Colorado Springs campus.

Jeffrey Stansbury, Professor, School of Dentistry, University of Colorado at Denver and Health Sciences Center and Professor, Chemical and Biological Engineering, CU-Boulder. Dr. Stansbury was a 2004 New Inventor of the Year.

Alan Weimer, Professor, Chemical and Biological Engineering, University of Colorado at Boulder. Dr. Weimer was a 2004 Inventor of the Year from the Boulder campus.

The Pinnacles of Inventorship group includes the following individuals:

Robert Allen - Professor of Medicine and Co-Division Head of the Hematology Department, University of Colorado at Denver and Health Sciences Center

William P. Arend – Scoville Professor Medicine and Director of Rheumatology Clinical Programs, University of Colorado at Denver and Health Sciences Center

Donald Bellgrau – Professor Immunology and Medicine, University of Colorado at Denver and Health Sciences Center

Christopher Bowman – Professor and Chair of the Department of Chemical and Biological Engineering in Boulder and Clinical Professor in the Department of Restorative Dentistry at Denver and Health Sciences Center

Michael Bristow – Professor of Medicine and Division Head of Cardiology, University of Colorado at Denver and Health Sciences Center

Marvin Caruthers – Distinguished Professor of Chemistry and Biochemistry, University of Colorado at Boulder

Thomas Cech – Distinguished Professor of Chemistry and Biochemistry, University of Colorado at Boulder; Professor of Biochemistry, Biophysics and Genetics, University of Colorado at Denver and Health Sciences Center; President of the Howard Hughes Medical Institute

Richard Duke – Professor of Medical Oncology, University of Colorado at Denver and Health Sciences Center

Alex Franzusoff – Formerly Associate Professor, Cell and Developmental Biology, University of Colorado at Denver and Health Sciences Center

Larry Gold - Professor of Molecular, Cellular and Developmental Biology, University of Colorado at Boulder; Member of the National Academy of Sciences

Leslie L. Leinwand - Professor and Chair of the Department of Molecular, Cellular and Developmental Biology, University of Colorado at Boulder

R. C. “Merc” Mercure – CEO of CDM Optics and Chairman of the Board of University License Equity Holdings, Inc.

Garret Model – Professor in the Department of Electrical and Computer Engineering, University of Colorado at Boulder

Carlos Paz de Araujo – Professor of Electrical and Computer Engineering, Colorado Springs Campus

Paul Seligman - Professor of Medicine in the Division of Hematology, University of Colorado at Denver and Health Sciences Center

Robert E. Sievers – Professor, Department of Chemistry and Biochemistry

Sally Stabler – Professor of Medicine and Co-Division Head of the Hematology Department, University of Colorado at Denver and Health Sciences Center

Paul Wischmeyer – Associate Professor, Anesthesiology, University of Colorado Denver and Health

Ding Xue – Associate Professor, Molecular Cellular and Developmental Biology, University of Colorado at Boulder

