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APLICACIONES
INDUSTRIALES DE LA
NANOTECNOLOGÍA





Jesus Gonzalez

Jesus Gonzalez received his undergraduate degree in Physics from the Escuela Superior de Física y Matemáticas of IPN, his master's degree in Science from the Physics Department of the CINVESTAV and his Ph.D. from Universidade Estadual de Campinas, Sao Paulo, Brazil.

Dr. Gonzalez has obtained several awards such as: National Award in Food Science and Technology (1994); Annual Award of the Mexican Surface and Vacuum Society (1995); Annual Award of the Mexican Physical Society (1999); National Award in Science and Arts (1999) and "Presea Lazaro Cardenas Award" (2002), which is awarded by the President of Mexico; Level III Researcher (highest ranking) within the "Sistema Nacional de Investigadores" (SNI) Mexico's National System of Researchers.

Dr. Gonzalez has published **259** articles, and **13** book chapters, more than 30 review articles, with more than 2500 citations.

He has been invited as a keynote speaker in more than **50** International Conferences. Dr. Gonzalez is author of **16** Mexican and 11 international patents. He has lectured and published widely in the research areas nanotechnology, coatings and thin films for optoelectronic applications.

Dr. Jesus Gonzalez is currently the General Director of the CIMAV, Centro de Investigación en Materiales Avanzados, S.C. in Chihuahua, Chih, Mexico since 2004.



Mike Roco

Mike Roco is the Senior Advisor for Nanotechnology at the National Science Foundation (NSF) and a key architect of the National Nanotechnology Initiative. Dr. Roco is the founding chair of the White House's National Science and Technology Council's subcommittee on Nanoscale Science, Engineering and Technology (NSET), and leads the Nanotechnology Group of the International Risk Governance Council (IRGC Geneva). He also coordinated the programs on academic liaison with industry (GOALI).

Dr. Roco is credited with thirteen patents and has contributed over two hundred journal articles and in sixteen books, including "Particulate Two-phase Flow" (1993), "Converging Technologies" (2003), and "Nanotechnology: Societal Implications" (2001, 2006), and more recently "Managing Nano-Bio-Info-Cognition Innovations" (2007) and "Mapping Nanotechnology Knowledge and Innovation: Global and Longitudinal Patent and Literature Analysis" (January 2009).

Forbes magazine recognized him in 2003 as first among "Nanotechnology's Power Brokers" and Scientific American named him one of 2004's top 50 Technology Leaders. In 2005, he received the AIChE Forum award "for leadership and service to the national science and engineering community through initiating and bringing to fruition the National Nanotechnology Initiative". He is the Editor of several journals, including the Journal of Nanoparticle Research. He was honored as recipient of the Carl Duisberg Award in Germany, "Burgers Professorship Award" in Netherlands, the "University Research Professorship" award and Fingerson/TSI award in the U.S. Dr. Roco is a member of several honorary boards and was elected Engineer of the Year by the U.S. Society of Professional Engineers and NSF in 1999 and again in 2004. He was awarded the National Materials Advancement Award from the Federation of Materials Societies at the National Press Club in December 2007 for NNI leadership and "as the individual most responsible for support and investment in nanotechnology by government, industry, and academia worldwide".



Bob Hwang

Bob Hwang received his undergraduate degree from UCLA in physics and his Ph.D. from the University of Maryland. He then went on to a postdoc position at the University of California, Berkeley and Lawrence Berkeley National Lab.

Bob was then awarded an Alexander von Humboldt award and spent one year at the University of Munich. In 1991, he took a position at Sandia National Labs in Livermore, CA where he conducted research in the area of surface physics. In 2003 he moved to Brookhaven National Lab as director of the Center for Functional Nanomaterials where he stayed until 2006. Bob is presently at Sandia National Labs in New Mexico where he serves as the director of the DOE supported Center for Integrated Nanotechnologies (CINT).

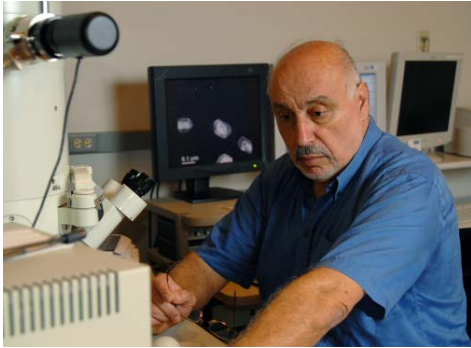


Dr. Robert Chang

Received his B.S. degree in Physics from the Massachusetts Institute of Technology and his Ph.D in Astrophysics from Princeton University. He spent 15 years performing research at Bell Laboratories before joining Northwestern University in 1986 as Professor of Materials Science and Engineering and Professor of Electrical and Computer Engineering. His current research interests include carbon nanotubes, nanophotonics for advanced solar cells, random lasing phenomenon, and quantum dots and wires.

Prof. Chang served fourteen years as director of Northwestern's Materials Research Center, where he established several large nano-related research programs and expanded research opportunities for undergraduates and pre-college science teachers.

A member of numerous international advisory boards, Prof. Chang is a former President of the Materials Research Society and the founding president of the International Union of Materials Research Societies (IUMRS). In service to the global community, he has organized a series of international materials workshops in Africa, Asia, Europe, the Americas, and the Middle East to establish a Materials World Network. Since 2001, he has also been leading the establishment of the Global Nanotechnology Network (GNN).



Miguel José Yacaman

He earned his Ph.D in physics in 1972 from the [National Autonomous University of Mexico](#), where he was later director of the Institute of Physics from 1983-1991. He was the Reese Endowed Professor in Engineering at the [University of Texas at Austin](#) from 2001-2008. In 2008, he joined The [University of Texas at San Antonio](#) (UTSA) to chair the Department of Physics and Astronomy in the College of Sciences.

Dr. Yacaman has done research on the structure and properties of [nanoparticles](#), including [metals](#), [semiconductors](#) and [magnetic materials](#). He has also worked on synthesis and characterization of new materials (most of them nanoparticles), surfaces and interfaces, defects in solids, electron diffraction and imaging theory, quasicrystals, archaeological materials, catalysis and physics and chemistry of asphaltenes.

Dr. Yacaman is the author of 9 books and over 400 technical papers on the field, with more than 4500 citations, contributed to more than 50 PhD and B.S tesis. He has 3 patents.

His work in nanoparticles open a new era in Electron Microscopy of finite size.

Dr. Yacaman has held the [Guggenheim Fellowship](#), and was awarded numerous prizes such as the National Prize of Sciences of Mexico, the Prize of the National Academy of Mexico in Exact Sciences, and The Mehl Award and Distinguished Lecture of The Metals Society TMS (USA).

He is a member of the Mexican National Research System (level III), and in May 2003 he was appointed National Researcher of Excellence by CONACyT.

Yacaman has made also many contributions to the Mexican science as science director of Conacyt during the nineties established many new programs that change the Mexican science



Dr. Gary Albach/ Executive Director/ NanoAlberta

Dr. Albach has over 30 years experience in the formation and management of high technology companies, starting as the founder of the first official spin-off company at the University of British Columbia, Canada (UBC), a private semiconductor equipment manufacturer acquired by its United States partner in 2004. He served for two years as Entrepreneur-in-Residence at UBC and was most recently CEO of Northwest Mettech Corp., a nanomaterials company in Vancouver specializing in industrial ceramic coatings.

Dr. Albach serves on the Board of Directors of a number of public and private organizations, is a past director and chair of the Commercialization Group of the British Columbia Technical Industries Association, has served on the Advisory Board for the National Research Council's Industrial Research Development Program (IRAP), and was the founding Chair of the Canadian Technology Network.

Dr. Albach has recently joined the Government of Alberta in the newly created position of Executive Director of nanoAlberta, within the department of Advanced Education and Technology. Dr. Albach holds a B.Sc. (Hon) from the University of Waterloo and a Ph.D. in physics from The University of British Columbia.



Dr Françoise ROURE

Economist, represents France to the International Dialogue on Responsible Development of Nanosciences and Nanotechnologies. She has been elected as Vice-Chairperson of the OECD Working party on Nanotechnology (WPN) since its kick off meeting in May 2007, under the Committee for Science and technology Policy (CSTP). She chairs the section “Technologies and society” of the French High Council for Industry, energy and technologies”. With Pr Jean-Pierre Dupuy, she is co-author of a report on “Nanotechnologies, ethics and industrial foresight”. Her Keynote lecture to the third International dialogue about “*Nanotechnology governance at the cross-roads*”. *Towards a structured dialogue on nanotechnology-induced change*” is online at

ftp://ftp.cordis.europa.eu/pub/nanotechnology/docs/report_3006.pdf

PANEL

***“Sharing Experiences in
Nanotechnology; its
Applications in the Market.”***



Charles Seeney (Xetacomp)

Charles Seeney, M.S. Polymer Science, is Founder and President of NanoBioMagnetics (NBMI), which is the fourth technology venture startup under his direction and leadership. He previously was Founder and President of NanoSource Technologies, Inc. (NSTI), whose Intellectual Property was acquired by the DuPont Corp (2002). He also established and led IMCERA Bioproducts, an internal venture for IMC Corporation, until its acquisition by the Mallinckrodt Chemical business unit (1990). His professional career spans 25+ years since receiving his degree from the University of Akron, OH, beginning his career as a Research Scientist with Fortune 200 Companies, eventually becoming a Director of R&D for International Minerals. In the mid-80's, his career interests turned to technology deployment when he started IMCERA Bioproducts, and has since used his consulting firm, ViCorp Tech LLC, to support the advancement of technology based businesses. Over his career, Seeney has been awarded 18 US Patents, with ten applications currently pending. He has also been published in peer reviewed journals.



Julio Gomez (Avanzare)

Recibió su grado de Licenciatura en Química de la Universidad Complutense de Madrid en 1995 y el Grado de Doctor en Química de la Universidad de La Rioja.

Ha participado en 114 Proyectos de I+D (84 % como investigador principal), principalmente en la Comunidad Europea. Cuenta con 33 Publicaciones en revistas internacionales del máximo impacto y es autor de 3 libros. Es miembro de Miembro del Subcomité de Nanomateriales de AESF (Estados Unidos), Miembro del Comité de Nanotecnologías de AENOR, Coordinador del subcomité de “Especificaciones Técnicas de los nanomateriales” AENOR, Miembro del Comité de Nanotecnologías de ISO, Miembro del Comité Riojano de I+D+i, Miembro de la Real Sociedad Española de Química, Miembro de NANOSPAIN, Miembro de la Plataforma Tecnológica Europea EUMAT.

Entre los reconocimientos que ha recibido se encuentran el NANOAWARD 2008 en la Categoría de Mejor Producto (EEUU), el Premio Nacional Emprendedor XXI 2008 del Ministerio de Industria de La Caixa, el Premio a la Innovación 2009 del Club de marketing de La Rioja, el Premio Extraordinario de Licenciatura de la Universidad Complutense de Madrid en 1996, el Premio extraordinario de Doctorado de la Universidad de La Rioja en 2001, el Premio al proyecto Emprendedor más destacado del año en I+D+i en La Rioja en 2007, el 1er premio Empresario Joven 2006 de la Asociación de Jóvenes Empresarios de La Rioja, el 1er Premio en Investigación y Desarrollo 2005. de la Asociación de Jóvenes Empresarios de La Rioja.



Ricardo Benavides (Industrias Peñoles)

Egresado de la Facultad de Ciencias Químicas Universidad Autónoma de Nuevo León, Además ha asistido a una serie de cursos con enfoque en Administración de Recursos Humanos, Administración de Costos y Administración de Empresas entre los que se pueden destacar el Diplomado en Calidad otorgado por Tecnología de Calidad, Leadership Plus, Análisis de Problemas y Toma de Decisiones, Control Estadístico de Procesos, Las 7 Herramientas Estadísticas Básicas, cursos sobre Administración de Tecnología por la UR en programa especial para personal de Peñoles. Actualmente se desempeña como Subdirector de Tecnología en Industrias Peñoles donde administra el Centro de Investigación y Desarrollo Tecnológico CIDT, infraestructura humana de 50 investigadores y técnicos dedicados a proporcionar servicios tecnológicos al grupo como diseño y desarrollo de procesos, asesoría, consultoría, y asimilación y transferencia de tecnología a las empresas del Grupo Peñoles específicamente en el campo de minería, metalúrgica y químicos industriales.

Ha sido colaborador en la obtención de 2 patentes otorgadas y 1 solicitud de patente, las cuales han sido protegidas en 18 Países, totalizando 30 documentos. Integrante del equipo ganador del premio Tecnos 2002 diseño e implementación de sistema ACSA para la Administración y Control de Laboratorio de Análisis Químicos del CIDT. Integrante del equipo ganador del premio Tecnos 99 categoría de patente empresa grande. Colaborador en la elaboración del capítulo Fuentes de Financiamiento para el Desarrollo Tecnológico del libro “Prácticas de Valor de Gestión de Tecnología”, Editado por ADIAT y financiado por el CONACYT y otras Instituciones (2004).