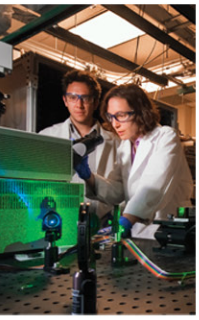
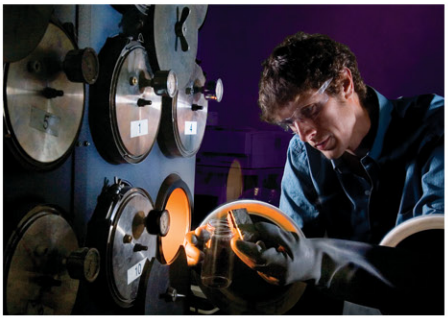
SAND2011-5823P

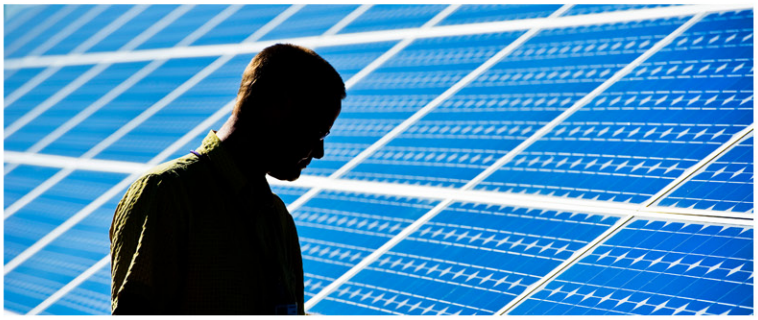
rising above

Sandia National Laboratories

2011 INNOVATION & INTELLECTUAL PROPERTY CELEBRATION







Sandia
National
Laboratories

August 25, 2011

Anderson Abruzzo
Albuquerque International
Balloon Museum

> Innovation is fostered by information gathered from new connections; from insights gained by journeys into other disciplines or places; from active, collegial networks and fluid, open boundaries. Innovation arises from ongoing circles of exchange, where information is not just accumulated or stored, but created. Knowledge is generated anew from connections that weren't there before.
>
> **Margaret J. Wheatley**

> To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science.
>
> **Albert Einstein**

> Creativity is thinking up new things. Innovation is doing new things.
>
> **Theodore Levitt**

intellectualproperty
MANAGEMENT, LICENSING, & ALLIANCES

2011
INNOVATION & INTELLECTUAL PROPERTY CELEBRATION

PROGRAM

7:05 p.m.	**Welcoming Remarks** Mark Allen *Manager, IP Management, Alliances & Licensing* *Sandia National Laboratories*
7:10 p.m.	**Dinner Served**
7:40 p.m.	**Guest Speaker (Copyright Awards)** Antonio Sandoval *U.S. Representative Martin Heinrich (Staff)* *1st Congressional District of New Mexico*
7:50 p.m.	**Guest Speaker (Patent Awards)** Hal Morgan *Senior Manager, Industrial Partnerships* *Sandia National Laboratories*
8:00 p.m.	**Keynote Speaker** Congressman Ben Ray Luján *3rd Congressional District of New Mexico*
8:15 p.m.	**Guest Speaker (Up-and-Coming Innovator Awards)** Steve Rottler *Chief Technology Officer* *Vice President, Science & Technology* *Sandia National Laboratories*
8:30 p.m.	**Closing Remarks** Mark Allen
8:35 p.m.	**End of Program** Museum open until 9 pm for viewing Collect Awards, Photographer Available

KEYNOTE SPEAKER CONGRESSMAN BEN RAY LUJÁN

Born and raised in New Mexico, Rep. Ben Ray Luján grew up in Nambe, a small farming community north of Santa Fe bordered by the pueblos of Nambe and Pojoaque. There he learned the time-honored traditions and values of New Mexico.

Since he was sworn into Congress, Rep. Luján has worked to get our economy back on track, build a clean energy economy, and stand up for consumers. He has worked for the people of New Mexico's 3rd Congressional District, passing legislation that invests in scientific research at New Mexico's national laboratories and advocating for tribal communities by improving infrastructure, education, and health care.

Rep. Luján represents his diverse district by participating in a variety of caucuses including the Congressional Hispanic Caucus, the Sustainable Energy and Environment Coalition, and the Natural Gas Caucus. At the beginning of the 112th Congress, Rep. Luján, together with co-chair Frank Wolf of Virginia, founded the Technology Transfer Caucus to bring together members who share the goal of strengthening our economy by helping move technological innovations that are occurring at national labs and universities into the marketplace.

As a member of the Committee on Science, Space, and Technology and the Technology and Innovation Subcommittee, Rep. Luján is working to combat climate change and make New Mexico a leader in renewable energy through investment in energy efficiency and clean energy technologies. Rep. Luján has also been an advocate for improving science, technology, engineering, and mathematics (STEM) curriculum in our schools to ensure that our children are prepared to compete in a global economy.

As a member of the Committee on Natural Resources and the Water and Power Subcommittee, Rep. Luján works to preserve land, water, and resources for future generations.

Rep. Luján is also the 2nd Vice Chair of the Congressional Hispanic Caucus. His work in Congress to ensure that the Hispanic community is included in the emerging clean energy economy earned him the recognition of one of Hispanic Business Magazine's 100 Most Influential Hispanics.

Prior to his election to Congress, Rep. Luján served as the Chairman of the New Mexico Public Regulation Commission. As a Commissioner, Rep. Luján worked with his colleagues to develop a renewable portfolio standard to increase renewable energy production by New Mexico utilities to 20 percent of their total production by 2020 and to diversify utilities' renewable portfolios to include solar energy.

Rep. Luján earned his Bachelor's degree from New Mexico Highlands University in Business Administration.

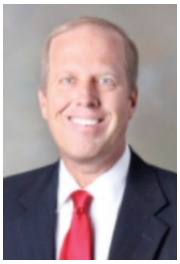
CELEBRATING OUR SPIRIT OF INNOVATION

Tonight's celebration is sponsored by Sandia's Industrial Partnerships department who is pleased to announce the second annual *Innovation and Intellectual Property Celebration*. This ceremony is just one of the ways we help to keep the innovative culture at Sandia National Labs alive and vibrant. We are holding this event to give special recognition to those Sandians who had patents issued in 2010 or, authored original software copyrights in 2010

The theme of tonight's ceremony is *Rising Above*, not only to reference our location at one of the international centers of balloon flight, but also as a metaphor for the intent and caliber of the ideas of those Sandia innovators represented here tonight. It is indeed passion, intellect, and resilience which are the distinguishing characteristics of these notable researchers. They are living examples of innovators who, everyday, contribute to the success of our laboratory and who through their important work, rise above.

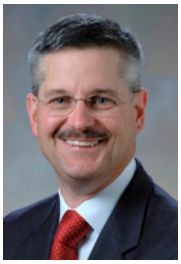
Additionally, we have included the "Up-and-Coming Innovator" award, which recognizes laboratory staff who display enormous potential for supporting impactful innovations, exhibit entrepreneurial talent, and develop unique solutions to complex scientific challenges. These select individuals have been nominated by Center Directors for their outstanding and promising work.

About Our Speakers



Mark Allen is tonight's Master of Ceremonies and is the Manager of the Intellectual Property Management, Alliances and Licensing department at Sandia National Laboratories.

Hal Morgan is the Senior Manager of the Industrial Partnerships and Strategy department at Sandia National Laboratories and will be presenting the patent awards this evening.



J. Steven Rottler is the Chief Technology Officer and Vice President of Science and Technology at Sandia National Laboratories and one of tonight's Guest Speakers.

COPYRIGHT AWARD RECIPIENTS

Robert J. Anderson
- PolyApps v. 1.0

Gary W. Ashcraft
- Adaptive Analysis Engine v. 1.0

Simeon Bochev
- Adaptive Analysis Engine v. 1.0

Susan A. Caskey
- BioRAM Lite

Scott M. Devonshire
- PTS4 Package for RCI 0.5 Alpha version

Peter A. Dudley
- PTS4 Package for RCI 0.5 Alpha version

Sean Dunagan
- Prosthesis Socket Pressure Tools v. 1.0

Kurt Brian Ferreira
- rMPI beta version

Michael Gardner
- PTS4 Package for RCI 0.5 Alpha version

Justin Garretson
- Gemini-Scout Vehicle & OCU Software (Commercial) v. 1.0.1.0

Jennifer M. Gaudioso
- BioRAM Lite

Eric Joseph Gottlieb
- GBS

Clifford K. Ho
- PHLUX: Photographic Flux Tools for Solar Glare and Flux Mapping v.1.0

Clinton G. Hobart
- Gemini-Scout Vehicle & OCU Software (Commercial) v. 1.0.1.0

Michael W. Holzrichter
- PTS4 Package for RCI 0.5 Alpha version

Jay D. Jordan
- PTS4 Package for RCI 0.5 Alpha version

Brian A. Kast
- Adaptive Analysis Engine v 1.0

Theodore J. Kim
- PTS4 Package for RCI 0.5 Alpha version

Jason Lechtenberg
- PTS4 Package for RCI 0.5 Alpha version

John D. Matthews
- PTS4 Package for RCI 0.5 Alpha version

Robert Morris
- PTS4 Package for RCI 0.5 Alpha version

Tram Nguyen
- Adaptive Analysis Engine v. 1.0

Fred J. Oppel III
- Car v. 1.0
- SOS v. 1.0
- UmbUtii v. 1.0
- COM v. 1.0

Daniel Jackson Peacock
- Adaptive Analysis Engine v. 1.0

Michael L. Pedroncelli
- PTS4 Package for RCI 0.5 Alpha version

Brian Rigdon
- Car v. 1.0
- SOS v. 1.0
- UmbUtii v. 1.0
- COM v. 1.0

Joshua Robbins
- Laslo 0.1 beta

Randy R. Rosenthal
- PTS4 Package for RCI 0.5 Alpha version

COPYRIGHT AWARD RECIPIENTS (CONT.)

Troy Ross
- Secure Sensor Platform (SSP) v. 1.0

Reynolds M. Salerno
- BioRAM Lite

Barry D. Schoeneman
- Secure Sensor Platform (SSP) v. 1.0

Samit Pranav Shah
- Adaptive Analysis Engine v. 1.0

Donald M. Small
- PTS4 Package for RCI 0.5 Alpha version

Jeffrey T. Spooner
- PTS4 Package for RCI 0.5 Alpha version

April Disch Sweet
- PTS4 Package for RCI 0.5 Alpha version

Martin E. Thompson
- PTS4 Package for RCI 0.5 Alpha version

Sonja Tideman
- PTS4 Package for RCI 0.5 Alpha version

Randall Wells
- Adaptive Analysis Engine v. 1.0

Patrick G. Xavier
- COM v. 1.0
- GBS

PATENT AWARD RECIPIENTS

Robert Anderson
- Controlling Motion Using a Human Machine Interface

Grant Biedermann
- Microfabricated Ion Frequency Standard

Ted Blacker
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Matthew Blain
- Microfabricated Ion Frequency Standard

Tim Boyle
- Water Soluble Titanium Alkoxide Material

Jeff Brinker
- Hollow Sphere Metal Oxides

George Burns
- Vicinal Light Inspection of Translucent Materials

Jeffrey Carlson
- Reduction of Background Clutter in Structured Lighting Systems

Malcolm Carroll
- Strained-Layer Superlattice Focal Plane Array Having a Planar Structure
- Isolating and Moving Single Atoms Using Silicon Nanocrystals

Bart Chavez
- Methods and Systems for Integration of Thermally Curable Media During Stereo-lithography

Mike Cich
- Strained-Layer Superlattice Focal Plane Array Having a Planar Structure

Andre Claudet
- Mesoscale Hybrid Calibration Artifact

Eric Coker
- Metal Nanoparticles as a Conductive Catalyst

David Cole
- Fragment Capture Device

Randy Creighton
- Nanowire-Templated Lateral Epitaxial Growth of Mon-Polar Group III Nitrides
- Highly Aligned Vertical GaN Nanowires Using Submonolayer Metal Catalysts

Mike Cuneo
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Neil Davie
- Using Piezo-Electric Material to Simulate a Vibration Environment

Don Davis
- Methods and Systems for Integration of Thermally Curable Media During Stereolithography

Mark Derzon
- Dielectrophoretic Columnar Focusing Device

Armin Doerry
- Decreasing Range Resolution of a SAR Image to Permit Correction of Motion Measurement Errors Beyond the SAR Range Resolution
- Comparing Range Data Across the Slow-Time Dimension to Correct Motion Measurement Errors Beyond the Range Resolution of a Synthetic Aperture Radar

Adele Doser
- Real-Time Human Collaboration Monitoring and Intervention

Ihab El-Kady
- Microfabricated Bulk Wave Acoustic Bandgap Device
- Microfabricated Bulk Wave Acoustic Bandgap Device

Gary Fischer
- Wheeled Hopping Robot

Cy Fujimoto
- Epoxy-Crosslinked Sulfonated Poly (phenylene) Copolymer Proton Exchange Membranes

Paul Galambos
- Dielectrophoretic Columnar Focusing Device

Michail Gallis
- Ion Beam Assisted Deposition of Graded Thermal Barrier Coatings

Fred Gelbard
- Integrated Boiler, Superheater, and Decomposer for Sulfuric Acid Decomposition

Scott Gladwell
- Controlling Motion Using a Human Machine Interface

Ron Greene
- Small Caliber Guided Projectile

PATENT AWARD RECIPIENTS (CONT.)

Freddie Heard
- Decreasing Range Resolution of a SAR Image to Permit Correction of Motion Measurement Errors Beyond the SAR Range Resolution
- Comparing Range Data Across the Slow-Time Dimension to Correct Motion Measurement Errors Beyond the Range Resolution of a Synthetic Aperture Radar

Michael Hibbs
- Epoxy-Crosslinked Sulfonated Poly (phenylene) Copolymer Proton Exchange Membranes

Vincent Hietala
- Microelectromechanical Tunable Inductor

Conrad James
- Dielectrophoretic Columnar Focusing Device
- Microfluidic Device for the Assembly and Transport of Microparticles

Rich Jepsen
- Using Piezo-Electric Material to Simulate a Vibration Environment

Curtis Johnson
- Real-Time Human Collaboration Monitoring and Intervention

Wendell Jones
- Real-Time Human Collaboration Monitoring and Intervention

James Jones
- Small Caliber Guided Projectile

Brian Kast
- Small Caliber Guided Projectile

Bob Kerr
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Jin Kim
- Strained-Layer Superlattice Focal Plane Array Having a Planar Structure

Marc Kniskern
- Small Caliber Guided Projectile

Les Krumel
- Deployable Telescope Having a Thin-Film Mirror and Metering Structure

Ramon Leeper
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Tony Lentine
- Thermal Microphotonic Sensor and Sensor Array

Qiming Li
- Nanowire-Templated Lateral Epitaxial Growth of Mon-Polar Group III Nitrides
- Highly Aligned Vertical GaN Nanowires Using Submonolayer Metal Catalysts

Tom Lutz
- Ion Beam Assisted Deposition of Graded Thermal Barrier Coatings

Ron Manginell
- Microfabricated Fuel Heating Value Monitoring Device
- Methods for Improved Preconcentrators
- Tortuous Path Chemical Preconcentrator

Jeff Martin
- Deployable Telescope Having a Thin-Film Mirror and Metering Structure

Jeff Mason
- Using Convolutional Decoding to Improve Time Delay and Phase Estimation in Digital Communications

Michael Mazarakis
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Rick McCormick
- Microfabricated Bulk Wave Acoustic Bandgap Device
- Microfabricated Bulk Wave Acoustic Bandgap Device

Jim McDonald
- Ion Beam Assisted Deposition of Graded Thermal Barrier Coatings

Michael McDonald
- Controlling Motion Using a Human Machine Interface

Peter Merkle
- Real-Time Human Collaboration Monitoring and Intervention

John Michalski
- Computer Network Control Plane Tampering Monitor

Bob Moore
- Integrated Boiler, Superheater, and Decomposer for Sulfuric Acid Decomposition
- Decontamination with Isosaccharinic Acid

Matthew Moorman
- Microfabricated Fuel Heating Value Monitoring Device

Gregory Nielson
- Thermal Microphotonic Sensor and Sensor Array
- Fabrication of Thermal Microphotonic Sensors and Sensor Arrays

Christopher Nordquist
- Nanoeletromechanical Switch and Logic Circuits Formed Therefrom

David Novick
- Reduction of Background Clutter in Structured Lighting Systems

Murat Okandan
- Methods for Improved Preconcentrators
- Tuned Optical Cavity Magnetometer

Roy Olsson
- Microelectromechanical Resonator and Method for Fabrication
- Microfabricated Bulk Wave Acoustic Bandgap Device
- Microfabricated Bulk Wave Acoustic Bandgap Device
- Microfabricated Ion Frequency Standard

Richard Ormesher
- Using Convolutional Decoding to Improve Time Delay and Phase Estimation in Digital Communications

Steve Owen
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Denise Padilla
- Reduction of Background Clutter in Structured Lighting Systems

Jeremy Palmer
- Methods and Systems for Integration of Thermally Curable Media During Stereolithography
- Ultrashort-Pulse Laser Generated Nanoparticles of Energetic Materials

Ed Parma
- Integrated Boiler, Superheater, and Decomposer for Sulfuric Acid Decomposition

PATENT AWARD RECIPIENTS (CONT.)

Rus Payne
- Fragment Capture Device

Kent Pfeifer
- Fragment Capture Device
- Ion Mobility Spectrometer with Virtual Aperture Grid

John Porter
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Jim Ramsey
- Determining Position Inside Building via Laser Rangefinder and Handheld Computer

Alex Robinson
- Microfabricated Fuel Heating Value Monitoring Device

Alex Roesler
- Microfabricated Triggered Vacuum Switch

Brandon Rohrer
- Small Caliber Guided Projectile

Louis Romero
- Passive Levitation in Alternating Magnetic Fields

Ed Romero
- Using Piezo-Electric Material to Simulate a Vibration Environment

Scott Rose
- Small Caliber Guided Projectile

Josh Schare
- Microfabricated Triggered Vacuum Switch

Peter Schwindt
- Tuned Optical Cavity Magnetometer
- Microfabricated Ion Frequency Standard

Darwin Serkland
- Microfabricated Ion Frequency Standard

Mike Shaw
- Thermal Microphotonic Sensor and Sensor Array
- Fabrication of Thermal Microphotonic Sensors and Sensor Arrays

John Shelnutt
- Method of Photocatalytic Nanotagging
- Dendritic Metal Nanostructures

Joe Simonson
- Tortuous Path Chemical Preconcentrator

Michael Sinclair
- Laser Warning Receiver
- Fragment Capture Device

Matt Staten
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

Dan Stick
- Microfabricated Ion Frequency Standard

Bill Stygar
- Unconstrained Paving and Plastering Method for Generating Finite Element Meshes

William Sweatt
- Laser Warning Receiver
- Method to Fabricate a Tilted Logpile Photonic Crystal

Alex Tappan
- Ultrashort-Pulse Laser Generated Nanoparticles of Energetic Materials

Tom Tarman
- Computer Network Control Plane Tampering Monitor

Chris Tigges
- Fragment Capture Device

Mark Torgerson
- Computer Network Control Plane Tampering Monitor

Hy Tran
- Mesoscale Hybrid Calibration Artifact

Mark Tucker
- Decontamination Formulations
- Decontamination Formulation with Additive for Enhanced Mold Remediation
- Kit Systems for Granulated Decontamination Formulations
- Decontamination with Isosaccharinic Acid
- Highly Concentrated Foam Formulation for Blast Mitigation

Doug Vangoethem
- Using Piezo-Electric Material to Simulate a Vibration Environment

Allen Vawter
- Optical Data Latch

Milton Vernon
- Integrated Boiler, Superheater, and Decomposer for Sulfuric Acid Decomposition

George Wang
- Nanowire-Templated Lateral Epitaxial Growth of Mon-Polar Group III Nitrides
- Highly Aligned Vertical GaN Nanowires Using Submonolayer Metal Catalysts

Kurt Wessendorf
- Dual-Range Linearized Transimpedance Amplifier System

David Wheeler
- Tortuous Path Chemical Preconcentrator

Ron Wild
- Methods for Forming Precision Clockplate with Pivot Pins

Christopher Wilson
- Reduction of Background Clutter in Structured Lighting Systems

Pin Yang
- Vicinal Light Inspection of Translucent Materials
- Methods for Manufacturing Porous Nuclear Fuel Elements for High-Temperature Gas-Cooled Nuclear Reactors

Denny Youchison
- Ion Beam Assisted Deposition of Graded Thermal Barrier Coatings

2011
INNOVATION & INTELLECTUAL PROPERTY CELEBRATION

UP-AND-COMING INNOVATORS

Leah Appelhans
- Organic Materials

Stan Atcitty
- Wind Energy Technologies

Joy Barker
- Mission Systems Engineering

Susan Caskey
- International Biological Threat Reduction

Doug Deming
- Weapon Use Control Systems

Jared Dove
- Special Technologies

Thomas J. Hafenrichter
- Systems Analysis Department

Scott Hemmert
- Scalable Computer Architecture

Bryan Kaehr
- Ceramic Processing & Inorganic Materials

Hung (Jacques) Loui
- SAR Sensor Technologies

Michael McLain
- Radiation Effects Experimentation

Nathan Moore
- Radiation Effects Research

Roy H (Troy) Olsson
- MEMS Technologies

David Perkins
- Information Systems Integration

Enrico Quintana
- Experimental Mechanics/NDE & Model Validation

Susan Rempe
- Nanobiology

Kevin Robbins
- Flight Embedded Software & Simulation

Edward Romero
- Mechanical Environments

Peter Schwindt
- Photonic Microsystems Technologies

Anthony Tanbakuchi
- Optical Payload Design & Realization

Brandon Witcher
- Power Systems, Cables and EMI

2011

INNOVATION & INTELLECTUAL PROPERTY CELEBRATION

rising above

U.S. DEPARTMENT OF ENERGY | NNSA National Nuclear Security Administration

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