Joan Marie Bienvenue, Ph.D.
Executive Director and Vice Provost
University of Tennessee – Oak Ridge Innovation Institute

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Business Address:
Oak Ridge National Laboratory
Building 5100, 1 Bethel Valley Road
Oak Ridge, TN 37830

EXECUTIVE LEADERSHIP EXPERIENCE:

Oak Ridge National Laboratory, Oak Ridge, TN
March 2021 – Current
Executive Director and Vice Provost, Oak Ridge Institute at the University of Tennessee, Knoxville

Inaugural executive leader of the University of Tennessee – Oak Ridge Innovation Institute, brought in to build the new organization, develop a strategic plan to include development of targeted graduate academic and research programs, and execute federal, state, and local priorities.

Strategic Vision, Innovation, and Leadership

- Develop vision, strategy, and roadmap to establish leading interdisciplinary graduate research programs in emerging fields of interest to both the University of Tennessee and Oak Ridge National Laboratory
- Provide strategic alignment of joint research, education, and workforce development programs with both the university and the lab
- Work closely with university and laboratory leadership to align research priorities, recruiting, and hiring and build team science activities
- Combine and align existing joint programs for research and education to ensure efficiency and best use of resources
- Work with the university system and national lab for creation and commercialization of technology
- Develop a communications team and strategy, to include marketing, digital communication, a website, and social media presence, coordinating with University and National Laboratory leadership

Growth of the Research Enterprise and Scholarly Impact

- Awarded and maintain a joint faculty appointment in the Department of Mechanical, Aerospace, and Biomedical Engineering, Tickle College of Engineering, University of Tennessee, Knoxville
- Responsible for working with system leadership to secure $80 M in funding from the State of Tennessee
- Hire up to 120 new joint research faculty (both tenure and non-tenure track) to develop independent research programs and increase research funding and scholarly output in areas of key need for the Department of Energy
- Develop new coursework/curricula, workshops, and immersive, experiential learning opportunities for students along the education pathway from K-12 to graduate programs
- Take responsibility for three independent joint PhD programs in Data Science, Energy Science, and Genome Sciences and Technology, with 155 joint PhD students, align them under a single

organization, and develop a plan for recruiting and substantially increasing enrollment up to 500 students
- Develop and launch the Summer Mentoring and Research Training (SMaRT) for undergraduates to experience hands on research in emerging fields, gain experience with professional presentations, writing, and exposure to other technical and business skills
- More than double number of participants in the SMaRT program in its second year, from 18 to 43 and increase participation of students from underserved groups to over 50%
- Partner with the University of Tennessee, Chattanooga to develop degree completion program to include industry partners
- Manage and grow the joint faculty and Governor's Chairs faculty programs to increase collaborative research and engagement
- Seed new research opportunities with competitive faculty research funding awards through multiple targeted programs, investing millions of dollars annually in areas of strategic importance
- Build and lead new programs for workforce development and K12 education

Engagement and Partnerships
- Create a statewide to nationwide Learning Collaborative, initially including 9 universities, colleges, and community organizations, including HBCUs and community colleges, to facilitate discussion and partnership around education, workforce development, and research
- Work closely with local community leaders, including the East Tennessee Economic Council, the Oak Ridge Institute for Science and Engineering, the East Tennessee Development District, and the Tennessee Valley Corridor, to partner on opportunities and develop networks of support
- Participate in events that raise awareness of new joint programs, encourage development and new partnerships
- Partnered with PBS as part of the Building the Future of East Tennessee's Workforce: Creating Pathways for Early Learners initiative with the Tennessee Valley Authority's Connected Communities Initiative to build a series of programming to educated, entertain, and challenge young minds

Management of Compliance and Core Functions

- Manage $80 M of investment funding from the State of Tennessee, as well as execute on time and on budget, a 5-year, $36.8 M award from the Department of Energy
- Build and manage directly a team of currently 15 individuals (and growing), responsible for growing programs in education, research, and workforce development; work across complex teams to achieve goals without direct management
- Ensure strategic alignment of operations (financial, communications, and infrastructure), strategic planning, program development, and educational mission
- Maintain compliance of educational programs with all Tennessee Higher Education Commission standards
- Develop an external Advisory Board and internal Advisory Committee for UT-ORII, to ensure stakeholder input is consistently received and requirements met with excellence
- Develop by-laws and operating protocols for new organization, in compliance with State of Tennessee, University and Department of Energy standards

University of Virginia, Charlottesville, VA
June 2013 – March 2021

Senior Executive Director, Applied Research Institute

First executive leader of the Applied Research Institute recruited to create organization and execute a President/Provost strategic priority to grow basic and applied research, education, and training, with emphasis on global and national security, across 11 schools.

Strategic Vision, Innovation, and Leadership

- Lead university wide engagement and strategy development with government agencies and corporations to enable UVA research enterprise to understand, aggressively compete for, and win sponsored work, resulting in a 137% increase of sponsored work in national security to $41.8 M annually over the past 5 years
- Oversee the identification and pursuit of national research and educational opportunities, positioning UVA as a recognized problem solver for national and global security challenges.
- Grow UVA's national impact through a targeted program of student and faculty engagement in the National Capital Region
- Develop new university-wide programs and initiatives for faculty, staff, and student engagement with the national security community
- Envision and create a nationally credentialed program management service for the university
- Grow and manage relationship with Lewis Burke Associates for key strategic federal opportunities
- Oversee initiation and building of the university's National Industrial Security Program, to include construction and certification of new classified research space (SCIF) and pursuit and maintenance of security clearances for faculty, staff, and students
- Leverage the University's convening prominence to support economic development, expansion of the UVA research park, and investment in Virginia
- Lead a staff of seven direct reports and inspire action across several hundred
- Member of the National Academies of Sciences Board on Army Research and Development (BOARD); co-chaired three workshops with published proceedings

Growth of the Research Enterprise and Scholarly Impact

- Enable and implement effort to modernize the legacy $278 M expenditure pan-university research enterprise from systems to support staff to support $409 M in research expenditures in FY 2020
- Annually increase the number of grant and proposal submissions, directly and indirectly, increasing national security contract wins to over 41.8 million (and steadily growing) annually
- Develop and operate capture management program for the university
- Provide opportunities for faculty engagement in national research initiatives and position them for awards and recognition
- Create new research and educational programs with government agencies
- Work with university leadership to develop new educational degree programs, including those focused on areas of need for the national security community, both agency and industry

Engagement and Partnerships

- Grow strategic partnerships and key business relationships, including joint research submissions with other academic, agency, and industry collaborators
- Work closely with the UVA Foundation and Research Park to recruit, retain, and engage industry partners in research and development
- Develop close partnerships with local and state economic development teams, to include the Virginia Economic Development Partnership, to facilitate regional growth and expansion of economic opportunity

- Work across the university with school leadership to recruit and retain faculty – targeted recruiting for strategic research growth
- Founded and Chaired of the Commonwealth Conference on National Defense and Intelligence (CCNDI), a statewide university effort, to create a three-day event that has since inception assembled more than 1,500 academics, corporate leaders, and government national security professionals for collaboration
- Creator of the Grounds-on-the-Go and Grounds-to-Government lecture series that enables faculty to present their research off grounds to a broader industry and government community
- Creator of a workshop program for government leaders to bring challenges to the academic community for intellectual assessment, solution development, and further engagement

Tech Transfer and Maturation of Research – Research Life Cycle Support

- Develop and implement full life cycle research support system to enable faculty success from initial opportunity shaping and planning, proposal development and capture management support, program management for execution on funded contracts, detailed research plans for follow-on funding, and translation support for moving research through the 'valley of death' to accelerated commercial development
- In partnership with UVA Licensing and Ventures, responsible for developing a detailed course of action to envision and build a local accelerator to translate university intellectual property

Management of Compliance and Core Functions

- Oversee nine primary related lines of effort under ARI: Finance and Budgeting, Operations, Advancement, Business Development, Project and Technical Program Management, Compliance, Institutional Security, Engagement, Defense and Intelligence Data Analysis, and Capture Services.
- Responsible for operations and management of the university National Security Program, to include day-to-day management of the SCIF facility and all government reporting requirements
- Creation of the National Security Support Group, a pan-university working group to provide on-going situation awareness about security and compliance operating issues among key university stakeholders, for informed decision making

Lockheed Martin Corporation, Rockville, MD
September 2008 – May 2013
Program Manager and Chief Scientist, Biometrics/Health and Life Sciences

Project development and management of engineering and scientific program for DNA-based systems for human identity, taking the research program from initial concept to full low-rate instrument production and sales.

Program Management and Administration

- Led Lockheed Martin's DNA analysis technology program that resulted in a device that can process DNA samples in field conditions in less than a quarter of the time such analysis takes in traditional laboratories, an addressable market estimate for this business is $4.6B
- Budget and financial oversight, and overall program direction for rapid forensic biometric microfluidic DNA analysis program
- Managed a badge-less, diverse development team of approximately 20 scientists and engineers including subcontract program management of a small, university start-up

- Successful identification, funding pursuit, and management of two university research projects totaling $350k in funding
- Represented project at all external government agency meetings and presentations, including professional meetings and conferences, executive briefings, and technical assessments
- Responsible for all scientific leadership on project
- Lockheed Martin certified Level II program manager

Business Development and Research Commercialization
- Developed business case and marketing strategy for rapid DNA analysis
- Responsible for securing IR&D funding from both business area and CE&T (over $15 M since 2008) for this cross business-area research and development effort
- Business development, customer interface responsible for first instrument sales to government customers
- Led capture management and proposal writing for extramural government funding

Technical Leadership and Expertise
- Technical writer for white papers, peer-reviewed journal articles, patent filings
- Provided strategic assessment of new technology and possible implementation, including business relevance and feasibility
- Evaluated intellectual property for appropriateness and freedom to operate
- Managed of DNA-related projects and was corporate subject matter expert for genetic analysis, forensic DNA typing methods, analytical instrumentation, and microfluidic systems

Armed Forces DNA Identification Laboratory (AFDIL), Rockville, MD
July 2007 – Sept. 2008
Supervisor, Validation and Quality Control

- Strategic oversight of the acquisition, validation, and implementation of new technology and methods for AFDIL
- Participated in oversight committees, with members of other defense, intelligence, and law enforcement agencies for the development and assimilation of microfluidic technology for the Department of Defense
- Member of Lockheed Martin customer advisory panel on microfluidic technology for forensic and biometric human identification
- Programming and assay development of automated DNA preparatory systems, including systems such as the Tecan Evo and Biomek FX^T
- Skilled in both mitochondrial and nuclear DNA analysis methods
- Supervised a group of six staff members responsible for both quality control and validation projects for the entire laboratory.

OTHER WORK EXPERIENCE

Federal Bureau of Investigation, Quantico, VA Counterterrorism and Forensic Science Research Unit (CFSRU)
January 2007-June 2007
Postdoctoral Research Fellow

- Validation, optimization, and development of novel methods for mitochondrial and nuclear DNA purification from bone

University of Virginia, Department of Chemistry, Charlottesville, Virginia
May 2001-December 2006
Graduate Research Assistant

Research Advisor: Dr. James P. Landers

Dissertation Title: "*DNA Purification in Integrated Microfluidic Systems for Clinical, Biowarfare, and Forensic Application*"

- Project management of multi-component, multi-functional microfluidic device development for clinical diagnostics, microbial pathogen detection, and forensic and biometric genetic analysis
- Development of novel micro-solid phase DNA extractions from bacterial, viral, and human sources for biometric, forensic, biowarfare, and clinical applications
- Fluidic manipulation and integration of multiple sample processing steps (cell sorting, DNA extraction, PCR amplification, separation and detection) in microfluidic devices for full genetic analysis of crude sample matrices, including analysis of *B. anthracis* in blood, cancer diagnostics, and detection of *B. pertussis* in patient samples.
- Developed novel polymer separation matrices for forensic, high-resolution capillary electrophoresis platforms
- Mentored 11 undergraduate researchers, both full-time and part-time, on a variety of research projects and provided instruction and lecture for upper-level Biochemistry, including wet laboratory supervision

New Hampshire State Crime Laboratory
July, 2000
Summer Intern

- Job shadowed throughout each area of the crime laboratory and completed special project assignments including editing of evidence manual being produced for the NH state police and scanning evidence slides for power point presentations

Bayer Pharmaceutical Division, West Haven, CT
July 1999 to April 2001
Associate Research Scientist I

- Dept. of Pharmacokinetics/Drug Metabolism, Dept. of Osteoporosis/Cancer Research
- Cell culture and implantation for tumor models
- Method and assay development for mass-spectrometry analysis of blood and plasma samples
- Determination of pharmacokinetic properties for drug development and liver microsomal stability and metabolism for development compounds
- Tested novel compounds using HPLC, UV/VIS spectrophotometry, LC/MS, and MS/MS
- Skilled with in-vivo techniques for drug discovery using rodent models including: basic handling, oral dosing, subcutaneous dosing, intraperitoneal dosing, I.V. dosing, minor surgeries (OVX, castration), implantation of mini-pumps, hollow fiber implantation, retro-orbital bleeds, tail bleeds, cardiac puncture and basic anesthesia and euthanasia
- Assay development and implementation of rodent studies for drug discovery

EDUCATION:

University of Mary Washington, 2009-2012
M.B.A.
University of Virginia, 2001-2006
Ph.D. Chemistry, Area of Specialization: Biochemistry/ Bioanalytical Chemistry
University of New Haven, 1999-2001
M.S., Forensic Science, Criminalistics; Certificate, Arson Investigation
Rivier College, 1995-1999
B.S., Cum Laude, Chemistry

PROFESSIONAL MEMBERSHIPS AND BOARD APPOINTMENTS:

Member, Building the Future of East Tennessee's Workforce Advisory Board, 2022

Member, Executive Advisory Board, EDNA, 2020

Member, National Academies of Sciences, Engineering, and Medicine, Board of Army Research and Development (BOARD), appointed Summer, 2019 for a three-year term; invited for second term, 2022

Fellow, American Academy of Forensic Sciences, member since 2001

CLEARANCES:

Department of Justice, Top Secret Security Clearance, awarded April 2007.
Transferred, Department of Defense, Secret Security Clearance, February 2009
Department of Defense, Top Secret Security Clearance/SCI, August 2014 - ACTIVE
DOE Q, March 2022 - ACTIVE

AWARDS AND HONORS:

2018 – Albemarle County Community, recognition for leadership and partnership development
2014 – Reward and Recognition Bonus, for outstanding leadership
2012 – 2013 Program Management Development Program Graduate, Lockheed Martin
2011 IS&GS Technology Program Award, Lockheed Martin
2010 SPOT Award, Lockheed Martin
2010 SRA Team Accomplishment Award, Lockheed Martin
2009, 2010 SRA Excellence Award, Lockheed Martin
2006 – 2007 Postdoctoral Research Fellowship in the Research Participation Program at the Federal Bureau of Investigation, administered by the Oak Ridge Institute for Science and Education (ORISE).
2005 – 2006 National Institute of Justice Graduate Research Fellowship
2005 Recipient, Forensic Science Foundation Travel Grant, American Academy of Forensic Sciences Meeting, February 2006.
2005 Recipient, University of Virginia Robert J. Huskey Award
2004 University of Virginia Graduate Research Symposium Winner

TEACHING EXPERIENCE:

- Lecturer and Co-Developer, Forensic DNA Profiling, Graduate Course, George Washington University, Fall 2007 and Spring 2008.
- Guest Lecturer, Forensic DNA Methods Course, George Mason University, Spring 2008
- Teaching Assistant for General Chemistry and Biochemistry, University of Virginia, Fall 2001 through Fall 2002.

PATENTS AND DISCLOSURES:

US 9.988,676 Michael E. Egan, Brian Root, Orion N. Scott, Douglas J. South, **Joan M. Bienvenue**, Paul Kinnon, James P. Landers, David Saul, An-Chi Tsuei, Jason Hayes, Matthew Springer, Matthew Solomon, Peter Van Ruijven. "Microfluidic Cartridge". *United States Patent Issued June 5, 2018.*

US 9,656,261 H. Randall Bell, **Joan M. Bienvenue,** John W. Pettit, James P. Landers, John W. Pettit, James P. Landers, Jessica V. Norris, Orion N. Scott, Daniel J. Marchiarullo, Daniel C. Leslie. "DNA Analyzer". *United States Patent Issued May 23, 2017.*

US 9,649,631 Joan M. Bienvenue, James P. Landers, Orion N. Scott. "Multiple-Sample Microfluidic Chip for DNA Analysis". *United States Patent Issued May 16, 2017.*

US 9,322,054 Michael Egan, Brian Root, Orion N. Scott, Douglas J. South, **Joan M. Bienvenue**, Paul Kinnon, James Landers, David Saul, An-Chi Tsuei, David Hayes, Matthew Springer, Matthew Solomon, Peter van Ruijven. "Microfluidic Cartridge". *United States Patent Issued April 26, 2016.*

US 9,067,207 H. Randall Bell, John W. Pettit, James P. Landers, **Joan M. Bienvenue**, Daniel J. Marchiarullo, Brian E. Root, Orion N. Scott. "Optical Approach for Microfluidic DNA Electrophoresis Detection". *United States Patent Issued June 30, 2015.*

US 8,916,375 James P. Landers, **Joan M. Bienvenue**, Lindsay A. Legendre, Christoper J. Easley, James M. Karlinsey. "Integrated Microfluidic Analysis Systems". *United States Patent Issued December 23, 2014.*

PUBLICATIONS IN PEER REVIEWED JOURNALS:

Delphine Le Roux, Brian E. Root, Carmen R. Reedy, Jeffrey A. Hickey, Orion N. Scott, Michael Egan, Darren Albert, Douglas J. South, Joan M. Bienvenue, James P. Landers, Luc Chassagne, Philippe de Mazancourt. "DNA Analysis Using an Integrated Microchip for Multiplex PCR Amplification and Electrophoresis for Reference Samples". **Analytical Chemistry**, 86 (16) 2014: 81-8199.

Jenny A. Lounsbury, **Joan M. Bienvenue**, James P. Landers. "Sample to Result STR Genotyping Systems: Potentials and Status". **Forensic Science Review**, (24) 2, 2012: 123-142.

Kristin A. Hagan, Carmen R. Reedy, Alison H. Dewald, **Joan M. Bienvenue** and James P. Landers. "A Valveless Microfluidic Device for Integrated Solid Phase Extraction and Polymerase Chain Reaction for STR Analysis". **Analyst**. 136(9), 2011: 1928-37. *Published Online, March, 2011.*

Carmen R. Reedy, Kristin A. Hagan, Daniel J. Marchiarulo, Alison H. Dewald, Annelise Barron, **Joan**

M. Bienvenue, James P. Landers. "A Modular Microfluidic System for DNA Identification by Short Tandem Repeat Analysis". **Analytica Chimica Acta**. 687(2), 2011: 150-8. *Published Online, December, 2010.*

Joan M. Bienvenue, James P. Landers. "DNA Extraction in Microfluidic Devices". **Forensic Science Review**, (22) 2, 2010: 188-197.

Carmen R. Reedy, Kristin A. Hagan, Briony C. Strachan, Joshua J. Higginson, **Joan M. Bienvenue**, Susan A. Greenspoon, Jerome P. Ferrance, and James P. Landers. "Dual-domain Microchip-based Process for Volume Reduction Solid Phase Extraction of Nucleic Acids from Dilute, Large Volume Biological Samples**". Analytical Chemistry**, (82) 3, 2010: 5669-5678

Carmen R. Reedy, **Joan M. Bienvenue**, Lisa Coletta, Briony C. Strachan, Naila Bhatri, Jerome P. Ferrance, Susan Greenspoon, James P. Landers. "Volume Reduction Solid Phase Extraction of DNA from Dilute, Large-Volume Biological Samples". **Forensic Science International, Genetics**, (4), 2010: 206-212**.**

Joan M. Bienvenue*, Lindsay A. Legendre*, Jerome P. Ferrance, James P. Landers. "An Integrated Microfluidic Device for DNA Purification and PCR Amplification of STRs: Interfacing Microfluidics and Conventional Instrumentation". **Forensic Science International, Genetics**, (4), 2010: 178-186.

Joan M. Bienvenue*, Kristin A. Hagan, Jerome P. Ferrance, James P. Landers "Microchip-based Purification of RNA from Biological Samples". **Analytical Chemistry**. (80) 22, 2008: 8453-8460.

Lindsay A. Legendre, Carleen J. Morris, **Joan M. Bienvenue**, Annelise Barron, Rebecca McClure, James P. Landers. "Towards a Simplified Microfluidic Device for Ultrafast Genetic Analysis with SampleIn/Answer-out Capability: Application to T-Cell Lymphoma Diagnosis". **JALA**, December, 2008: 35360. *Featured Article.*

Jian Wen, Lindsay A. Legendre, **Joan M. Bienvenue**, James P. Landers. "Nucleic Acid Purification in Microfluidic Devices: A Review". **Analytical Chemistry**. (80) 17, 2008: 6472-6479. *Featured Article, cover.*

Katie M. Horsman, **Joan M. Bienvenue,** Kiev R. Blasier, Jerome P. Ferrance, James P. Landers. "Forensic DNA Analysis on Microfluidic Devices: A Review". **Journal of Forensic Sciences**. (52) 4, 2007: 784-799.

Ki-Ho Han, Rachel D. McConnell, Christopher J. Easley, **Joan M. Bienvenue**, James P. Landers, A. Bruno Frazier. "An Active Microfluidic System Packaging Technology". **Sensors and Actuators B**. (122), 2007: 337-346.

Joan M. Bienvenue*, Lindsay A. Legendre*, Christopher J. Easley*, James M. Karlinsey*, Michael G. Roper, Molly Hughes, Erik Hewlett, Tod Merkel, Sanford H. Feldman, Jerome P. Ferrance, and James P. Landers. "Totally-Integrated Genetic Analysis in an Electrophoretic Microchip with Sample in-Answer out Capability". **Proceedings of the National Academy of Sciences**. 103 (51), 2006: 19272-7. Covered in ***Science*** as an *Editor's Choice* 19 January 2007: 315 (5810). Covered in ***Nature Biotechnology*** as a *Research Highlight*, February 2007: 25 (153). Covered in ***Analytical Chemistry***, February 1, 2007: (809). **CITATION CLASSIC, 2019**.

Qirong Wu, **Joan M. Bienvenue**, Benjamin J. Hassan, Yien C. Kwok, Jerome P. Ferrance, Pamela M.

Norris, and James P. Landers. "A Microchip-based Macroporous Silica Sol-gel Monolith for Efficient Isolation of DNA from Clinical Samples". **Analytical Chemistry**. (78) 16, 2006: 5704-10.

Joan M. Bienvenue*, Lindsay A. Legendre*, Michael G. Roper, Jerome P. Ferrance, James P. Landers. "A Valveless Microfluidic Sample Preparation Device for DNA Extraction and Amplification Using Conventional Instrumentation". **Analytical Chemistry**. (78) 5, 2006: 1444-51.

Joan M. Bienvenue, Natalie Duncalf, Daniel Marchiarullo, Jerome P. Ferrance, and James P. Landers. "Microscale Cell Lysis and DNA Extraction of Sperm Cells for Forensic Analysis", **Journal of Forensic Sciences**. (51) 2, 2006: 266-73.

Joan M. Bienvenue, Kate Wilson, James P. Landers, and Jerome P. Ferrance. "Evaluation of Sieving Polymers for Fast, Reproducible Electrophoretic Analysis of Short Tandem Repeats (STR) in Capillaries", **Journal of Forensic Sciences**. (50) 4, 2005: 842-8.

*Authors contributed equally to this manuscript.

JOURNAL REVIEWS:

Reviewer for several peer-reviewed journals including Electrophoresis, Forensic Science International – Genetics, Croatian Journal of Medicine, and the Journal of Biotechnology.

REPORTS AND CONFERENCE PROCEEDINGS

Paul J. Kern (chair), Jennifer A. Hitchcock (chair), **Joan M. Bienvenue**, Lawrence D. Burns, John W. Fischer, Paul G. Gaffney II, Merri J. Sanchez, John F. Wharton. "U.S. Army Futures Command Research Program Realignment", Consensus Study Report. **National Academies of Sciences, Engineering, and Medicine.** National Academies Press, 2021.

Joan M., Bienvenue (chair), John Clements (chair), Ruzena K. Bajcsy, Robert A. Barish, Clarion E. Johnson, Kent Kester, Ann Salamone, Martin-Jose Sepulveda, Philip Spinella, Mary Ann Spott. "Army Medical Research and Development Infrastructure Planning: Proceedings of a Workshop". **National Academies of Sciences, Engineering, and Medicine; Board on Army Research and Development**; Haller N, editor. National Academies Press, 2020.

Joan M. Bienvenue (chair), Jim Bagian. "Army Combat Trauma Care in 2035: Proceedings of a Workshop", **National Academies of Sciences, Engineering, and Medicine; Board on Army Research and Development**; Haller N, editor. National Academies Press, 2019.

BOOK CHAPTERS:

Jenny A. Lounsbury, Joan M. Bienvenue**, James P. Landers. "**Sample to Result STR Genotyping Systems: Potential and Progress. CRC Press, FL: 2013.

Joan M. Bienvenue and James P. Landers. "Sample Processing with Integrated Microfluidic Systems", In The Handbook of Capillary and Microchip Electrophoresis and Associated Microtechniques. CRC Press, FL: 2007.

Joan M. Bienvenue, James M. Karlinsey, James P. Landers, and Jerome P. Ferrance. "Clinical

Applications of Microfluidic Devices", In Electrokinetic Phenomena: Principles and Applications in Analytical Chemistry and Microchip Technology. Marcel Dekker, Inc., NY: 2004.

CONFERENCES AND WORKSHOPS:

Joan M. Bienvenue* and Christina Murata, Chairs, U.S. Army Synthetic Biology Roundtable. *National Academies of Sciences, Engineering, and Medicine, Board of Army Research and Development,* 2021.

Joan M. Bienvenue* and John D. Clements, Chairs, Army Medical Research and Development Infrastructure Planning. *National Academies of Sciences, Engineering, and Medicine, Board of Army Research and Development,* 2020.

Joan M. Bienvenue* and Jim Bagian, Chairs, Army Combat Trauma Care in 2035. *National Academies of Sciences, Engineering, and Medicine, Board of Army Research and Development*, 2019.

Joan M. Bienvenue**, Creator and Chair, *Commonwealth Conference on National Defense and Intelligence,* 2014 – current.

Joan M. Bienvenue** and James Landers, Charter Organizers and Inaugural Conference Chairs, Gordon Research Conference, *Forensic Analysis of Human DNA,* 2016.

James Landers and **Joan M. Bienvenue***. "DNA Analysis by Lab-on-a-Chip Technology". *International Association of Forensic Scientists Triennial Meeting,* 2014.

Joan M. Bienvenue*, Brian E. Root, Stevan Jovanovich, Richard Seldon, Cecelia Crouse, Stacey Anderson, Christopher Miles, Bruce Budowle, Tom Callaghan, James P. Landers. "Microfluidic Systems for Rapid Forensic DNA Analysis: Update and Potential Impact. *Promega International Symposium on Human Identification,* 2012.

Joan M. Bienvenue*, Peter Vallone, Susan Greenspoon, Bruce McCord, Cecilia Crouse, Carmen R. Reedy, Kristin A. Hagan, Teresa Sneider-Leiby. "Microfluidic Systems for Forensic DNA Analysis: The Incredible Shrinking DNA Lab", *Promega International Symposium on Human Identification*. 2011.

James P. Landers, Robert Giles, Suzanne Bell, **Joan M. Bienvenue***, "Integrated Microfluidics for Forensic Applications", *American Academy of Forensic Sciences Conference, 2009.*

James P. Landers, Robert Giles, Suzanne Bell, **Joan M. Bienvenue*, "**Microfluidics: Advancing Forensic DNA Analysis", *International Association of Forensic Scientists Triennial Meeting,* 2008.

***Workshop Chair and Presenter **Conference Chair**

ORAL PRESENTATIONS:

***Invited Speaker **Keynote Lecture**

***Joan Bienvenue.** "Partnership in Research and Education", *East Tennessee Economic Council,* 2022.
***Joan Bienvenue (moderator)**. "Role of Leadership (Panel Discussion)", *Workforce Symposium: Growing and Retaining Talent,* 2022.

***Joan Bienvenue. "**Building a Diverse Workforce". *East Tennessee Economic Council and Oak Ridge Chamber of Commerce,* 2021.

***Joan Bienvenue.** "The Power of Partnerships and Collaboration (Panel Discussion)", *Tennessee Valley Corridor Summit,* 2021.

Joan M. Bienvenue. "Translation of Microfluidic Technologies from the Laboratory to the Field". *Biosensors, Microfluidics, and Lab-on-a-Chip Technologies,* 2017.

Joan. M. Bienvenue. "Transitioning Microfluidic Technology from Research to Product: Lessons Learned from the Development of a μTAS for Forensic Human ID" Workshop, Point-of-CareDiagnostics, *μTAS, 2016.*

Brian Root, Carmen Reedy, An-Chi Tsuei, Jeffrey Hickey, Michael Egan, BS; Robert Lovaglio, Lawrence Dirks, Orion Scott, Douglas South, James P. Landers, **Joan M. Bienvenue.** "A Multi-Channel, Microfluidic Cartridge for Rapid Forensic DNA Analysis". *American Academy of Forensic Sciences Conference, 2013.*

Joan M. Bienvenue and James P. Landers, "The IntrepID S2A-90 – Advancements in Rapid DNA Analysis". *Biometrics Consortium Conference,* 2012.

Joan M. Bienvenue and James P. Landers. "Rapid DNA Analysis: Technological Overview and the Benefits/Challenges for Forensics. *Green Mountain DNA Conference,* 2012.

Brian E. Root, Kristin A. Hagan, Carmen R. Reedy, Jessica V. Norris, Michael Egan, Robert Lovaglio, Orion Scott, Douglas South, Peter Trost, Darren Albert, **Joan M. Bienvenue,** James P. Landers. "A Multichannel Microdevice for Rapid Forensic DNA Analysis". *American Academy of Forensic Sciences Conference,* 2012.

Joan M. Bienvenue.** "DNA Analysis for Forensic and Biometric Human Identification Using Integrated Microfluidic Systems". *Complex Adaptive Systems.* 2011.

Brian E. Root, Carmen R. Reedy, Kristin A. Hagan, Michael Egan, Robert Lovaglio, Doug South, Peter Trost, Orion N. Scott, David Saul, James P. Landers, **Joan M. Bienvenue.** "A Multi-channel Microdevice for PCR Amplification and Electrophoretic Separation of DNA". *μTAS*, 2011.

Brian E. Root, Carmen R. Reedy, Kristin A. Hagan, Michael Egan, Robert Lovaglio, Doug South, Peter Trost, Orion N. Scott, David Saul, James P. Landers, **Joan M. Bienvenue.** "Fast Sample-to-Answer DNA Analysis for Human Identification". *Promega Corporation's 22nd International Symposium on Human Identification"*, 2011.

Joan M. Bienvenue. "An Update on the Rapid DNA Analysis Project". *Biometrics Consortium Conference,* 2011.

Joan M. Bienvenue*. "DNA as the Ultimate Biometric: Advances and Opportunities in DNA Analysis for Human Identification". Invited Speaker. *Biometrics Consortium Conference,* 2011.

Jessica V. Norris, Kristin A. Hagan, Brian E. Root, Orion N. Scott, James P. Landers, **Joan M. Bienvenue**, "Demonstration of Rapid IR-Mediated PCR Amplification of STR Loci Using Polymeric Microfluidic Devices". *American Academy of Forensic Sciences Conference,* 2011.

Joan M. Bienvenue, "Fast Sample-to-Answer DNA Analysis for Human Identification". *Laboratory Automation,* 2011.

Joan M. Bienvenue, "DNA: The Ultimate Biometric? Advances in Molecular Processing and Analysis". *NSF Workshop on Fundamental Research Challenges for Trustworthy Biometrics,* 2010.

Joan M. Bienvenue, Jessica Norris, Brian Root, Orion Scott, Carmen Reedy, Kristin Hagan, Jenny Lounsbury, John Pettit, Annelise Barron, Abby Mackness, John Mears, Paul Kinnon, David Saul, and James P. Landers, "Advanced Integrated and Portable Microfluidic Systems for Fully-Automated STR Analysis". *American Academy of Forensic Sciences Conference,* 2010.

Joan M. Bienvenue, Jessica Norris, Brian Root, Dan Marchiarullo, Sarah Linke, Carmen R. Reedy, Kristin A. Hagan, Orion N. Scott, John Pettit, Abby Mackness, Randy Bell. John Mears, Annelise Barron, and James P. Landers, "Fully-Integrated, Multiplexed STR-based Human Identification Using a Single

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