

**Life Sciences Division
CY 2000 Presentations**

- Askari, M. D., G. H. Miller, C. Brenner, and T. Vo-Dinh, "Application of Synchronous Luminescence for Detection of the Hydrolysis Activity of the FHIT, Human Tumor Suppressor Protein," presented at the International Congress of Photobiology, San Francisco, California, July 1-6, 2000.
- Askari, M. D., G. H. Miller, J. P. Alarie, M. Moreno-Bondi, and T. Vo-Dinh, "Application of Multifunction Biochip for P53 Protein Detection," presented at the International Congress of Photobiology, San Francisco, California, July 1-6, 2000.
- Barnes, M. D., A. Mehta, T. Thundat, and R. N. Bhargava, "Probing Single-Ion Luminescence in Rare-Earth Doped Nanocrystals," presented at the 10th International Symposium on Resonance Ionization Spectroscopy, Knoxville, Tennessee, October 8–12, 2000 (Invited).
- Barshick, S. A., J. E. Caton, G. A. Sega, A. A. Vass, J. Love, and M. Marks, "Measurement Technologies for Determining Time Since Death," presented at the American Academy of Sciences 52nd Annual Meeting, Reno, Nevada, February 21–26, 2000.
- Boll, R. A., D. C. Glasgow, and S. Mirzadeh, "NAA Quality Control of Actinium-225 for Medical Applications," presented at the Symposium on Neutron Activation Analysis, American Chemical Society, Washington, D.C., August 19–24, 2000.
- Brown, G. M., H.-F. Ji, E. Finot, R. Dabestani, T. G. Thundat, T. G. Levitskaia, and P. F. Britt, "Development of Cesium and Other Alkali Metal Ion Selective Sensors," presented at Mercer University, Macon, Georgia, April 11–13, 2000 (Invited).
- Buchanan, M. V., P. F. Britt, M. J. Doktycz, G. B. Hurst, and M. E. Lidstrom, "Monitoring Genetic and Metabolic Potential for *In-Situ* Bioremediation Mass Spectrometry," presented at the DOE Environmental Management Science Program, Atlanta, Georgia, April 24–28, 2000 (Invited).
- Bunick, G. J. and G. D. Wignall, "Neutron Scattering Instrumentation Upgrades at the Oak Ridge High Flux Isotope Reactor," presented at the American Crystallographic Association Annual Meeting, St. Paul, Minnesota, July 22–27, 2000 (Invited).
- Chao, H.H.J., S. E. Mentzer, N.L.A. Cacheiro, D. A. Carpenter, D. K. Johnson, E. M. Rinchik, and Y. You, "Progress in Phenotypic and Molecular Characterization of the *Eh* (Hairy Ears) Inversion in Mouse *Chr 15*," presented at the 20th Great Lakes Mammalian Development, Toronto, Canada, April 2000. *
- Chen, C. H., N. R. Isola, V. V. Golovlev, and S. L. Allman, "Laser Desorption Mass Spectrometry for Chemical Sequencing and Probe Analysis," presented at the Human Genome Meeting, Vancouver, Canada, April 9-12, 2000 (Invited). *

- Chen, C. H., “Laser Desorption Mass Spectrometry for DNA Typing,” presented at the National Institute of Justice, Grantee Meeting, Reno, Nevada, February 19-22, 2000 (Invited). *
- Chen, C. H., N. R. Isola, K. L. Lee, J. Z. Zhou, L. Sammartano, H. Huang, and R. Hurt, “Laser Desorption Mass Spectrometry DNA Analysis for Environmental Applications,” presented at the DOE-EMSP Workshop, Atlanta, Georgia, April 24-27, 2000 (Invited). *
- Chen, C. H., “High Throughput Hybridization Mass Spectrometry for Disease Screening,” presented at the DOE Biomedical Engineering Contractor Meeting, Albuquerque, New Mexico, May 15-18, 2000 (Invited). *
- Chen, C. H., J. Z. Zhou, N. R. Isola, R. Hurt, N. I. Taranenko, and H. Huang, “Laser Desorption Mass Spectrometry for Microbial DNA Analysis,” presented at the 4th International Symposium on the Interface Between Analytical Chemistry and Microbiology,” Tregastel, France, June 4-7, 2000. (Invited) *
- Chen, C. H., N. R. Isola, L. Sammartano, and S. L. Allman, “Laser Desorption Mass Spectrometry for Biomolecule Detection and Its Applications,” RIS2000, Knoxville, Tennessee, October 8-12, 2000. *
- Chen, C. H., “Laser Desorption Mass Spectrometry for Microbial Analysis,” presented at the DOE-NABIR Workshop, Arlington, Virginia, December 5-7, 2000. (Invited)
- Crawford, O. H., “Singleton Score Matrices for Threading in the Twilight Zone,” presented at the Fourth Community-Wide Experiment on the Critical Assessment of Techniques for Protein Structure Predictions, Asilomar, California, December 3-7, 2000.
- Dhar, M. S., L. S. Webb, L. Hauser, D. West, and D. K. Johnson, “A putative aminophospholipid transporter is linked to the *p* locus on mouse chromosome 7,” presented at the 14th International Mouse Genome Conference, Narita, Japan, November 6-9, 2000.
- Doktycz, M. J., “Flowthrough Genosensors and Related Technology,” presented at the American Chemical Society National Meeting, Spring Symposium for Advanced Materials and Nanotechnology, San Francisco, California, April 1-5, 2000. (Invited) *
- Doktycz, M. J., B. H. Jones, C. T. Culiati, P. R. Hoyt, B. W. Harker, R. E. Barry, D. D. Schmoyer, S. Petrov, E. M. Rinchik, K. L. Beattie, J. R. Snoddy, and E. J. Michaud, “Defining Complex Genetic Pathways with Gene-Expression Microarrays,” presented at the Tennessee Biomedical Engineering Conference, Knoxville, Tennessee, March 31-April 1, 2000.
- Eidherr, H., M. Milterhauser, K. Krcal, E. Bartosch, G. Zettinig, F. F. Knapp, Jr., and R. Dudczak, “Evaluation of the 188W/188Re Generator and Online Concentration System,” presented at the 24th International Symposium on Radioactive Isotopes in Clinical Medicine and Research, Bad Gastein, Austria, January 11-14, 2000.

Eigler, N., J. Whiting, R. Makkar, H. Honda, F. F. Knapp, Jr., F. Litvack, and A. Li, "RADIANT Liquid Isotope Intravascular Radiation Therapy System," presented at Cardiovascular Radiation Therapy IV Syllabus, Cardiovascular Brachytherapy Institute, Washington Cancer Institute, Washington Hospital Center, Cardiovascular Research Institute, Washington, D.C., February 16–18, 2000.

Ferrell, T. L. and T. G. Thundat, "Integrated Nanophotonic Sensing, Spectroscopy, and Signal Processing," presented at DARPA/MTO 2000 Optoelectronics Review Conference, Cincinnati, Ohio, October 16–19, 2000 (Invited).

Golovlev, V. V., J. C. Miller, G. Romer, and P. Messier, "Laser Analysis and Restoration of Nineteenth Century Daguerreotypes," presented at the 10th International Symposium on Resonance Ionization Spectroscopy, The University of Tennessee, Knoxville, Tennessee, October 8–12, 2000. (Invited)

Golovlev, V. V., J. C. Miller, G. Romer, and P. Messier, "Laser Analysis and Cleaning of Nineteenth Century Daguerreotypes," presented at Laser Applications to Chemical and Environmental Analysis, Optical Society of America, Santa Fe, New Mexico, February 11–14, 2000.

Hansen, K. M., G. Wu, H.-F. Ji, T. G. Thundat, R. Datar, and A. Majumdar, "Nanochemical Detection of Biomolecular Interactions," presented at the Electrochemical Society Fall Meeting, Symposium VI: Microfabricated Systems & MEMS V, Phoenix, Arizona, October 22–27, 2000.

Hanson, B. L., K. Kirschbaum, D. A. Parrish, D. E. Timm, A. Howard, A. A. Pinkerton, and G. J. Bunick, "Macromolecular Data Collection with Cryogenic Helium," presented at the 8th International Conference on the Crystallization of Biological Macromolecules, Sandestin, Florida, May 14–19, 2000.

Hanson, B. L., J. M. Harp, K. Kirschbaum, D. A. Parrish, D. E. Timm, A. Howard, A. A. Pinkerton, and G. J. Bunick, "Macromolecular Data Collection with Cryogenic Helium," presented at the American Crystallographic Association Annual Meeting, St Paul, Minnesota, July 22–27, 2000.

Harp, J. M., B. L. Hanson, D. E. Timm, and G. J. Bunick, "The Asymmetric Nucleosome," presented at the American Crystallographic Association Annual Meeting, St Paul, Minnesota, July 22–27, 2000.

Haverlock, T. J., S. Mirzadeh, P. V. Bonnesen, R. A. Sachleben, H. Ji, R. Dabestani, G. M. Brown, B. P. Hay, J. C. Bryan, and B. A. Moyer, "Fundamental Studies and Applications of Calix[4]arene-Crown-6 Compounds," presented at the DOE-BES Workshop, Argonne, Illinois, November 20–21, 2000.

Hettich, R. L., J. L. Stephenson, and M.V. Buchanan, "How Does High Resolution ES-FTICR-MS Under Broadband Conditions Enhance Characterization of Protein and Peptide

Mixtures?,” presented at the 48th ASMS Conference on Mass Spectrometry and Allied Topics, Long Beach, California, June 11–15, 2000.

Hingerty, B. E., S. Shimotakahara, A. Gorin, A. Kolbanovskiy, J. Krzeminski, D. Desai, S. Broyde, N. E. Geacintov, and D. Patel, “Characterization of Site-Specifically Modified Tamoxifen-n2-Guanine Adducts in DNA,” presented at the American Association for Cancer Research, San Francisco, California, April 1–5, 2000.

Hingerty, B. E., G. J. Bunick, J. Harp, and L. Wang, “Computational Modeling of DNA: Treatment of Dielectric, Charges and Van der Waals Radii,” presented at Computational Biology 2000, Nice, France, June 13–15, 2000.

Hoyt, P. R., M. J. Doktycz, R. J. Warmack, and D. P. Allison, “Spin Column Isolation of DNA-Protein Interactions from Complex Protein Mixtures for AFM Imaging,” presented at Heidelberg 2000, Scanning Probe Microscopy, Cantilever Sensors and Nanostructures, Heidelberg, Germany, May 28–31, 2000. (Invited)

Hurst, G. B., S. J. Kennel, L. J. Foote, and M. V. Buchanan, “Affinity Capture and MALDI-MS of Cytokines from Mouse Serum,” presented at the 48th ASMS Conference on Mass Spectrometry and Allied Topics, Long Beach, California, June 11–15, 2000.

Hyatt, D., J. Snoddy, D. D. Schmoyer, G.-L. Chen, K. Fischer, M. Parang, I. Vokler, S. Petrov, P. F. LoCascio, V. Olman, M. L. Land, M. B. Shah, and E. C. Uberbacher, “GRAIL-EXP and the Genome Analysis Toolkit,” presented at the 13th Annual Cold Spring Harbor Meeting on Genome Sequencing & Biology, Cold Spring Harbor, New York, May 10–14, 2000.

Hyatt, D., J. Snoddy, D. Schmoyer, G. Chen, K. Fischer, M. Parang, I. Vokler, S. Petrov, P. LoCascio, V. Olman, M. Land, M. Shah, and E. Uberbacher, “Improved Analysis and Annotation Tools for Whole-Genome Computational Annotation and Analysis: GRAIL-EXP Genome Analysis Toolkit, and Related Analysis Tools,” presented at the 13th Annual Cold Spring Harbor Meeting on Genome Sequencing & Biology Meeting, Cold Spring Harbor, New York, May 10–14, 2000.

Hyatt, D., P. F. LoCascio, V. Olman, M. Shah, and I. Vokler, “Infrastructure and Tools for High Throughput Computational Genome Analysis,” presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.

Johnson, D. K. and D. R. Miller, “Regional Mutagenesis and Broad-based Phenotype Screening by The Tennessee Mouse Genome Consortium,” presented at Mutagenesis of the Mouse Genome, University of Georgia, Athens, Georgia, September 6–9, 2000.

Jones, D. S., G. R. Bilyard, S. L. Domotor, K. A. Highley, and D. C. Kocher, “Principles and Issues in Radio-Ecological Risk Assessment (Radio-ERA),” presented at the Society of Environmental Toxicology and Chemistry, Nashville, Tennessee, November 12–16, 2000. (Invited)

- Kennel, S. J., “Categorical Seminar, The Use of Alpha Emitting Isotopes in Preclinical and Clinical Trials,” presented at the Society for Nuclear Medicine, 47th Annual Meeting, St. Louis, Missouri, June 4–8, 2000. (Invited) *
- Kennel, S. J., “Vascular Targeting for Radioimmunotherapy,” presented at the DOE-BER Workshop, Nuclear Medicine Program, Williamsburg, Virginia, October 17–20, 2000. (Invited) *
- Knapp, F. F., C. T. Coburn, A. L. Beets, N. A. Abumrad, R. A. Silverstein, and M. Febbraio, “Changes in Gene Expression are Detected by Differences in BMIPP and IPPA Metabolism in Heart Lipids of Wildtype and CD36 Null Mice,” presented at the Society of Nuclear Medicine Annual Meeting, St. Louis, Missouri, June 4-8, 2000.
- Knapp, F. F., S. Mirzadeh, and A.L. Beets, “Tungsten-188/Rhenium-188 Generators Using Tungsten-188 Reactor-Produced from Irradiation of a Natural Tungsten Target,” presented at the Society of Nuclear Medicine Annual Meeting, St. Louis, Missouri, June 4-8, 2000.
- Knapp, F. F., “From Twinkling Atoms to Glowing Hearts – Development and Clinical Use of Radioiodinated Fatty Acids,” presented at the Fourth International Symposium on Radiohalogens, University of Washington Medical Center, Whistler, Canada, September 9–13, 2000.
- Knapp, F. F., Jr., “Production and Availability of Beta-Emitting Radioisotopes for Restenosis Therapy,” presented at the Cardiovascular Radiation Therapy IV Syllabus, Cardiovascular Brachytherapy Institute, Washington Cancer Institute, Washington Hospital Center, Cardiovascular Research Institute, Washington, D.C, February 16–18, 2000.
- Knapp, F. F., S. Mirzadeh, and A. L. Beets, “Evolving Applications of Reactor-Produced Radioisotopes for Therapeutic Applications in Nuclear Medicine, Oncology and Interventional Cardiology,” presented at the 2000 International Pacific Basin Chemical Congress, Honolulu, Hawaii, December 14–19, 2000.
- Kocher, D. C., “Elements of a System for Radiological Protection of the Environment,” presented at the 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry, Nashville, Tennessee, November 12–16, 2000. (Invited)
- Kocher, D. C., “Considerations of a Radiation Weighting Factor for Alpha Particles in Protection of Non-Human Biota,” presented at the 21st Annual Meeting of the Society of Environmental Toxicology and Chemistry, Nashville, Tennessee, November 12–16, 2000. (Invited)
- Lamerdin, J., F. Larimer, D. Arp, A. Hooper, J. Norton, M. Klotz, L. S. Soto, D. Arciero, N. Hommes, and M. Whittaker, “The Genome of Nitrosomonas: Specialization for Growth Only on Ammonia and CO₂,” presented at the American Society for Microbiology General Meeting, Los Angeles, California, May 21–25, 2000.

- Land, M., D. Schmoyer, M. Parang, J. Snoddy, S. Petrov, R. J. Mural, and E. C. Uberbacher, "Genome Information Warehouse: Information and Databases to Support Comprehensive Genome Analysis and Annotation," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.
- Larimer, F., D. Hyatt, M. Land, R. Mural, M. Parang, M. Shah, J. Snoddy, and E. C. Uberbacher, "Automated Microbial Genome Display and Analysis," presented at G2K: Back to Science: Advances in Genome Biology and Technology, Marco Island, Florida, February 5–8, 2000.
- Larimer, F., D. Hyatt, M. Land, R. J. Mural, M. Parang, M. Shah, J. Snoddy, and E. C. Uberbacher, "Comprehensive Microbial Genome Display and Analysis," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.
- Larimer, F., M. Land, D. Hyatt, M. Shah, A. Arellano, S. Stilwagen, L. Do, P. Chain, A. Kobayashi, D. Arp, A. Hooper, S. Chisholm, G. Rocap, C. Harwood, J. Meeks, G. Weinstock, E. Uberbacher, E. Branscomb, and J. Lamerdin, "Annotation of Microbial Genomes for High-Throughput Sequencing," presented at the 13th International Genome Sequencing and Analysis Conference, Miami Beach, Florida, September 12–15, 2000.
- Larimer, F. W., "Genomic Survey of Key Autotrophic Microorganisms in the Natural Carbon Cycle," presented at Arrowhead Small Genomes Conference 2000, Lake Arrowhead, California, September 24–28, 2000.
- Lee, D. W., L. N. McCold, D. P. Vogt, and K. L. Yuracko, "Evaluation of Hazardous Materials Management Practices for Application to Range Residue Management," presented at the Twenty-Ninth U.S. Department of Defense Explosives Safety Seminar, New Orleans, Louisiana, July 18–20, 2000.
- Long, T. L., H. T. Borges, K. A. Davidson, C. S. Forsyth, S. Milanez, R. A. Young, C. M. Troxel, and S. S. Talmage, "Estimation of Actual Inhalation Threshold Concentrations for Human Exposure from Limited Animal Data," presented at the Society of Toxicology Annual Meeting, March 19–23, 2000. (Invited)
- Lowe, K. S., F. G. Gardner, and R. L. Siegrist, "Field Pilot Test of *In Situ* Chemical Oxidation through Recirculation using Vertical Wells at the Portsmouth Gaseous Diffusion Plant," presented at the 26th Environmental Symposium and Exhibition, Long Beach, California, March 27–30, 2000.
- McPherson, D. W. and F. F. Knapp, "Evaluation of M1 and M2 mAChR Subtypes in Aging and Alzheimer's Rat Models with Dual-Labeled E/Z-RR-IQNP," presented at the Annual Meeting of Society of Nuclear Medicine, St. Louis, Missouri, June 4–8, 2000.
- McPherson, D. W. and F. F. Knapp, "Utility of a Dual-Labeled E/Z-RR-IQNP Cocktail as a Novel *In Vivo* Tool for the Independent Evaluation of Cerebral Muscarinic Receptor M1 and

- M2 Subtype Density and Viability in a Rat,” presented at the 220th Annual Meeting of the American Chemical Society, Washington, D.C., August 20–24, 2000.
- Miller, D. R., “Mutagenesis and Broad-Based Phenotype Screening by the Tennessee Mouse Genome Consortium,” presented at Mouse Initiatives II, The Jackson Lab, Bar Harbor, Maine, July 12–15, 2000. (Invited). *
- Miller, J. C., “Applications of Atomic, Molecular and Chemical Physics to Art Conservation,” presented at the Annual Conference of the National Society of Black Physicists, Greensboro, North Carolina, March 18, 2000. (Invited)
- Miller, J. C., “A Technical Primer on Lasers,” presented at the AIC Annual Meeting, Pittsburgh, Pennsylvania, June 8–13, 2000. (Invited)
- Mirzadeh, S. and S. J. Kennel, “*In Vivo* Radionuclide Generators: $^{212}\text{Pb}/^{212}\text{Bi}$ and $^{225}\text{Ac}/^{213}\text{Bi}$ Systems,” presented at the National Meeting of the American Chemical Society, Division of Nuclear Chemistry and Technology, Symposium in Memory of Seymour Katcoff, Washington, D.C., August 19–24, 2000. (Invited)
- Mural, R. J., M. Land, F. Larimer, M. Parag, M. Shah, D. Hyatt, E. C. Uberbacher, P. Folta, T. Bobo, and T. Slezak, “Annotation of Draft Genomic Sequence Generated at the JGI,” presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.
- Mural, R., M. Parang, M. Shah, D. Hyatt, M. Land, F. Larimer, J. Snoddy, and E. C. Uberbacher, “Navigation, Visualization, and Query of Genomes: The Genome Channel and Beyond,” presented at G2K: Back to Science: Advances in Genome Biology and Technology, February 5–8, 2000.
- Muralidharan, G., L. Maya and T. Thundat, “Structure and Electrical Properties of an Assembly of Gold Nanoclusters,” presented at the Materials Research Society, Fall Meeting, Boston, Massachusetts, November 27–December 1, 2000.
- Nobuhara, K, C. Halldin, H. Hall, J. Hiltunen, D. W. McPherson, A. Savonen, K. A. Bergstrom, C. G. Swahn, S. Larsson, P. O. Schnell, L. Farde, and G. Sedvall, “Z-IQNP: A Potential Radioligand for the Spect Study of Muscarinic Acetylcholine Receptors in Alzheimer's Disease,” presented at the European Associate of Nuclear Medicine Meeting, Paris, France, September 2–6, 2000.
- Oh, S., D. Moon, S.-W. Park, M.-K. Hong, S.-J. Park, F. F. Knapp, and H. Lee, “Automated Synthesis of Highly Concentrated Re-188-MAG3 for Intracoronary Radiation Therapy,” presented at Cardiovascular Radiation Therapy IV Syllabus, Cardiovascular Brachytherapy Institute, Washington Cancer Institute, Washington Hospital Center, Cardiovascular Research Institute, Washington, D.C., February 16–18, 2000.

- Parang, M., M. Land, D. Schmoyer, J. Snoddy, D. Hyatt, R. Mural, and E. C. Uberbacher, "Navigation, Visualization, and Query of Genomes: The Genome Channel and Beyond," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.
- Penno, S., J. E. Lamerdin, F. W. Larimer, and W. R. Hess, "Comparative Genomics in Marine Cyanobacteria: Evolution of the Phycoerythrin Gene Cluster in *Prochlorococcus*," presented at Genomes 2000: International Conference on Microbial and Model Genomes, Paris, France, April 11–15, 2000..
- Petrov, S., "On Reflexive Data Models," presented at the 14th European Conference on Artificial Intelligence, Berlin, Germany, August 20–25, 2000.
- Pinnaduwege, L. A., "Electron Attachment to Rydberg States and Its Implications for Low-Temperature Plasmas," presented at the 53rd Annual Gaseous Electronics Conference, Houston, Texas, October 24–27, 2000 (Invited). *
- Porter, C. J., C. C. Talbot, J. Snoddy, E. C. Uberbacher, and A. J. Cuticchia, "Continuation of the Genome Database," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27–March 2, 2000.
- Rinchik, E. M., "Functional Annotation of Mammalian DNA Sequence by Large-Scale, Phenotype-Driven Recovery of Mouse Mutations," presented at Parke-Davis Molecular Genetics Laboratory, Alameda, California, April 2000. (Invited) *
- Rinchik, E. M., "Functional Annotation of Mammalian DNA Sequence by Large-Scale, Phenotype-Driven Recovery of Mouse Mutations," presented at Sarah Lawrence College Human Genetics Program, Bronxville, New York, April 2000. (Invited) *
- Rinchik, E. M., "Functional Annotation of Mammalian DNA Sequence by Large-Scale Phenotype-Driven Recovery of Mouse Mutations," presented at the Functional Genomics Colloquium sponsored by the American Society for Pharmacology and Experimental Therapeutics, Boston, Massachusetts, June 2000. (Invited) *
- Rinchik, E. M., "Short- and Long-Term Design Parameters for Chemical Mutagenesis Screens in Mice: Examples from Regional Mutagenesis Programs Ongoing at the Oak Ridge National Laboratory," presented at the Georgia Genetics Symposium II: Mutagenesis of the Mouse Genome, University of Georgia, Athens, Georgia, September 2000. (Invited) *
- Rinchik, E. M., "Mouse Mutagenesis," presented at the Tennessee Mouse Genome Consortium Retreat, Fall Creek Falls, Tennessee, December 2000. (Invited) *
- Russell, L. B., "Mutagenesis studies with various mutagens in various types of mouse germ cells," presented at Mutagenesis of the Mouse Genome, University of Georgia, Athens, Georgia, September 6–9, 2000. (Invited)

- Snoddy, J., G.-L. Chen, K. Fischer, D. Hyatt, M. D. Galloway, S. Petrov, P. F. LoCascio, S. A. Martin, R. J. Mural, M. L. Land, V. Olman, M. Parang, F. Larimer, D. D. Schmoyer, M. B. Shah, I. Vokler, G. Zhang, and E. C. Uberbacher, "User Interfaces Analysis Tools and System Infrastructure for Genome-Wide Computational Analysis," presented at G2K: Back to Science: Advances in Genome Biology and Technology, Marco Island, Florida, February 5–8, 2000.
- Snoddy, J., D. D. Schmoyer, K. Fischer, G.-L. Chen, M. L. Land, S. Petrov, S. a. Martin, E. J. Michaud, B. Barry, E. M. Rinchik, P. R. Hoyt, M. J. Doktycz, and E. C. Uberbacher, "Information Systems to Support Experimental and Computational Research into Complex Biological Systems and Functional Genomics: Several Pilot Projects," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27, 2000.
- Snoddy, J., D. Schmoyer, G. Chen, K. Fischer, M. Parang, I. Vokler, S. Petrov, P. LoCascio, V. Olman, M. Shah, D. Hyatt, and E. Uberbacher, "System Infrastructure and the Processing of Whole Genomes for Computational Annotation and Analysis," presented at the 13th Annual Cold Spring Harbor Meeting on Genome Sequencing & Biology Meeting, Cold Spring Harbor, New York, May 10–14, 2000.
- Snoddy, J., D. Schmoyer, M. Land, G. Chen, K. Fischer, M. Parang, I. Vokler, S. Petrov, P. F. LoCascio, V. Olman, M. Shah, D. Hyatt, and E. Uberbacher, "Status of a Comprehensive, Genome Wide Analysis and Annotation Project: Summaries of the Available Data and Current User Interfaces," presented at the 13th Annual Cold Spring Harbor Meeting on Genome Sequencing & Biology Meeting, Cold Spring Harbor, New York, May 10–14, 2000.
- Thundat, T. G., E. Finot, H.-F. Ji, R. Dabestani, P. F. Britt, P. V. Bonnesen, G. M. Brown, and R. J. Warmack, "Microcantilever Sensors for Selective and Sensitive Detection of Ions," presented at the DOE Management Sciences Program (EMSP), Atlanta, Georgia, April 25–27, 2000.
- Thundat, T. G., "Chemical, Physical, and Radiological Detection Using Microcantilevers," presented at the DOE Environmental Management Science Program, Atlanta, Georgia, April 25–27, 2000. (Invited) *
- Thundat, T. G., "Microcantilever Biosensors," presented at the University of California Berkeley, August 2000. (Invited) *
- Thundat, T. G., "Micromechanical Sensors," presented to American Institute of Chemical Engineers, Knoxville, Tennessee, September 19, 2000 (Invited).
- Thundat, T. G. and K. M. Hansen, "Nanoscale Science and Devices: Applications in Biology," presented at Monsanto, St. Louis, Missouri, September 25, 2000 (Invited).
- Thundat, T. G., "Chemical Sensing in Fourier Space," presented at The University of Tennessee, Chemistry Department Colloquium, Knoxville, Tennessee, October 19, 2000 (Invited).

- Vo-Dinh, T., “Nanosensors and Biochips: Frontiers in Environmental and Biomedical Diagnostics,” presented at Eurotrode Conference, Lyon, France, April 16–19, 2000. (Invited)
- Vo-Dinh, T., “Optical and Photoacoustic Sensors for Medical Diagnostics,” presented at Eurotrode Conference, Lyon, France, April 16-19, 2000. (Invited)
- Vo-Dinh, T., G. D. Griffin, D. L. Stokes, A. L. Wintenberg, J. Mobley, G. H. Miller, G. W. Morrison, D. Wright, P. Linn, and G. Olsen, “Advanced Biochip for Chemical and Biological Defense,” presented at the First Joint Conference on Point Detection for Chemical and Biological Defense, Hampton, Virginia, October 23–27, 2000.
- Watkins, J., H. T. Borges, R. Stafford, R. Biggar, and J. Goedert, “Collection and Verification of Data for Matched Records from U.S. Cancer and HIV/AIDS Registries,” presented at the Annual Meeting of the American Statistical Association, Section on Statistics in Epidemiology, Baltimore, Maryland, 2000. (Invited) *
- Weinberger, J., P. B. Schiff, F. Trichter, C. S. Wu, F. F. Knapp, and A. Schwartz, “Results of the Columbia Safety and Feasibility (CURE) Trial of Liquid Radioisotopes for Coronary Vascular Brachytherapy,” presented at the 75th American Heart Association Meeting, New Orleans, Louisiana, November 13–15, 2000.
- Xu, D., O. H. Crawford, P. F. LoCascio, and Y. Xu, “A Prediction Experience in CASP4 Using the PROSPECT Prediction Program,” presented at the CASP4 Conference, Asilomar Conference Center, Pacific Grove, California, December 3, 2000.
- Xu, D., P. LoCascio, and Y. Xu, “PROSPECT Web Server Using Supercomputers,” presented at the CASP4 Conference, Asilomar Conference Center, Pacific Grove, California, December 3, 2000.
- Xu, D., K. Baburai, C. B. Peterson, and Y. Xu, “A Structure Model for Vitronectin Based on Threading and Docking,” presented at the CASP4 Conference, Asilomar Conference Center, Pacific Grove, California, December 3, 2000.
- Xu, D., Y. Xu, G. Li, and J. Zhou, “A Computer Program for Generating Gene-Specific Fragments for Microarrays,” presented at the Fourth Annual International Conference on Computational Molecular Biology, Tokyo, Japan, April 8–11, 2000.
- Xu, Y., D. Xu, O. H. Crawford, and J. R. Einstein, “Protein Structure Determination by Combining Sparse NMR Data and Protein Threading,” presented at Quantitative Challenges in the Post-Genome Sequence Era, San Diego, California, January 11–15, 2000.
- Xu, Y., D. Xu, O. H. Crawford, and J. R. Einstein, “Protein Structure Determination Using Protein Threading and Sparse NMR Data,” presented at the Fourth Annual International Conference on Computational Molecular Biology, Tokyo, Japan, April 8–11, 2000.

- Xu, Y., D. Xu, and H.N. Gabow, "Protein Domain Decomposition Using a Graph-Theoretic Approach," presented at the Eighth International Conference on Intelligent Systems for Molecular Biology, La Jolla, California, August 20–23, 2000.
- Xu, Y., D. Xu, and O.H. Crawford, "Protein Structure Calculation Using Partial NMR Data and Protein Threading," presented at the CASP4 Conference, Asilomar Conference Center, Pacific Grove, California, December 3, 2000.
- Xu, Y. and D. Xu, "PROSPECT: A Threading-Based Protein Structure Prediction Program," presented at the CASP4 Conference, Asilomar Conference Center, Pacific Grove, California, December 3, 2000.
- Xu, Y., D. Xu, O. H. Crawford, J. R. Einstein, and E. C. Uberbacher, "Genome-Scale Protein Structure in *Prochlorococcus Europae* Genome," presented at the DOE Human Genome Contractor Grantee Workshop, Santa Fe, New Mexico, February 27, 2000.
- Xu, Y., D. Xu, and H.N. Gabow, "DomainParser: A New Program for Protein Domain Decomposition Using a Graph-Theoretic Approach," presented at the 8th International Conference on Intelligent Systems for Molecular Biology, ISMB2000, La Jolla, California, August 20–23, 2000.
- Xu, Y., D. Xu, and H.N. Gabow, "Protein Domain Decomposition Using a Graph-Theoretic Approach," presented at the Eighth International Conference on Intelligent Systems for Molecular Biology, La Jolla, California, August 20–23, 2000.
- Young, J. P., R. W. Shaw, and S. Mirzadeh, "Search for a 3.5 eV Gamma Emission from ²²⁹Thorium," presented at the American Chemical Society National Meeting, San Francisco, California, March 26–30, 2000.
- Zhou, J.-Z., H. Huang, B.-C. Xia, L. J. Hauser, R. J. Mural, A. V. Palumbo, and J. M. Tiedje, "Phylogenetic Diversity of Soil Samples and Novel Candidate Bacterial Divisions," presented at the American Society for Microbiology 100th General Meeting, Los Angeles, California, May 21–25, 2000.

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