

**Life Sciences Division
1999 Presentations**

- Asano, K. G., C. K. Bayne, and M. V. Buchanan, "Chemical Characterization of Fingerprints," presented at the International Association of Forensic Sciences Meeting, University of California, Los Angeles, California, August 22-28, 1999. (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 American Academy of Forensic Sciences 52nd Annual Meeting, Reno, Nevada, American February 21-26, 2000.
- Beets, A. L., S. Guhlke, H.-J. Biersack, and F. F. Knapp, Jr., "Availability of Very High Radiopurity Rhenium-188 from a Clinical-Scale Generator Using a 'Tandem' Concentration System," presented at the European Association of Nuclear Medicine (EANM) Congress, Barcelona, Spain, October 9-13, 1999.
- Britton, C. L., R. J. Warmack, S. F. Smith, P. I. Oden, R. L. Jones, G.M. Brown, W. L. Bryan, J. C. DePriest, M. N. Ericson, M. S. Emery, M. R. Moore, G. W. Turner, A. L. Wintenberg, T. D. Threatt, Z. Hu, L. G. Clonts, and J.M. Rochelle, "Multiple-Input Environmental Sensing Technology Utilizing Microfabricated Cantilever Structures," presented at Seattle '99: Scanning Probe Microscopy, Cantilever Sensors and Nanostructures, Seattle, Washington, May 30-June 1, 1999. (Invited)
- Britton, C. L. Jr., R. J. Warmack, S. F. Smith, P. I. Oden, R. L. Jones, T. G. Thundat, G. M. Brown, W. L. Bryan, J. C. DePriest, M. S. Emery, M. R. Moore, G. W. Turner, A. L. Wintenberg, T. D. Threatt, Z. Hu, and J. M. Rochelle, "Battery-Powered, Wireless MEMS Sensors for High-Sensitivity Chemical and Biological Sensing," presented at the ARVLSI (Advanced Research in Very Large Scale Instrumentation) Conference, Atlanta, Georgia, March 1999.
- Britton, C. L., Jr., R. J. Warmack, S. F. Smith, P. I. Oden, R L. Jones, T. Thundat, G. M. Brown, W. L. Bryan, J. C. DePriest, M. N. Ericson, M. S. Emery, M. R. Moore, G. W. Turner, A. L. Wintenberg, T. D. Threatt, Z. Hu, L. G. Clonts, and J. M. Rochelle, "Multiple Input Microcantilever Sensor with Capacitive Readout," presented at GOMAC (Government Microcircuits Applications Conference), Monterey, California, March 11, 1999.
- Buncick, M. C., P. I. Oden, F. Meriaudeau, J. DePriest, and T. L. Ferrell, "Investigation of Surface Plasmon Resonance for Sensing Hydrogen," presented at the National Meeting of the American Physical Society, March 1, 1999.
- Bunick, G. J., J. M. Harp, D. E. Timm, and B. L. Hanson, "Macromolecular Crystal Annealing: Overcoming the Fear of Flashing" presented at the Presentation and Decay at Cryo Temperatures Conference, Glasgow, Scotland, August 4-13, 1999. (Invited)

- Chen, C. H., "Laser desorption mass spectrometry for DNA sequencing and analysis," presented at the Human Genome Program Contractor Grantee Workshop VII, Oakland, California, January 12-16, 1999.
- Chen, C. H., "Rapid DNA Typing by Laser Desorption Mass Spectrometry," presented at the Forensic Science and Criminal Justice Technology 1999 National Institute of Justice, Orlando, Florida, February 14-15, 1999. (Invited)
- Chen, C. H., "Gene Probe for Microorganism Monitoring by Novel MS Approach," presented at the DOE-NABIR Workshop, Reston, Virginia, January 25-27, 1999.
- Chen, C. H., "Laser Desorption Mass Spectrometry for Rapid Nucleic Acid Analysis," presented at the American Physical Society Centennial Meeting, Atlanta, Georgia, March 20-26, 1999. (Invited).
- Chen, C. H., N. I. Taranenko, N. R. Isola, and V. V. Golovlev, "DNA analysis and sequencing by MALDI," presented at the 47th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, Texas, June 13-17, 1999.
- Coburn, C., A. L. Beets, F. Wang, N. Abumrad, M. Febbraio, J. Kropp, and F. F. Knapp, Jr., "Use of BMIPP to Probe CD36 Glycoprotein Activity in Normal and CD36 Knockout Mice — Demonstration of Significant Differences in Target Organ Uptake and Lipid Pool Distribution," presented at the European Association of Nuclear Medicine (EANM) Congress, Barcelona, Spain, October 9-13, 1999.
- Coburn, C., M. Febbraio, A. L. Beets, F. Wang, J. Kropp, F. F. Knapp, Jr., and N. A. Abumrad., "Demonstration of Marked Defects in Tissue Long Chain Fatty Acid Uptake in Two Models of CD36 Deficiency: CD36 Null Mice and Spontaneously Hypertensive Rats," presented at the 27th Steenbock Symposium, Adipocyte Biology and Hormone Signaling, University of Madison, Madison, Wisconsin, June 6-9, 1999.
- Coleman, R. L. and M. E. Murray, "Detection of Depleted Uranium in Soil Using Portable Hand-Held Instruments," presented at the International Symposium on the Restoration of Environments with Radioactive Residues, Arlington, Virginia, November 29-December 3, 1999. (Invited)
- Collins, E. D., J. A. Klein, J. B. Knauer, Jr., C. W. Alexander, S. Mirzadeh, W. D. Aaron, and R. L. Cline, "Oak Ridge Isotope Products and Services - Current and Expected Supply and Demand," presented at Global '99 International Conference of Future Nuclear Systems, Jackson Hole, Wyoming, August 29-September 3, 1999. (Invited)
- Crawford, O. H., Y. Xu, D. Xu, and E. C. Uberbacher, "A New Threading Algorithm for Proteins," presented at the 3rd Community Wide Experiment on the Critical Assessment of Techniques for Protein Structure Prediction, Asilomar, California, December 13, 1999.

- Cullum, B. M., J. Mobley, J. S. Bogard, M. Moscovitch, and T. Vo-Dinh., "Development of Instrumental ORAM System for Radiation Dosimetry," presented at the SPIE Meeting, International Society for Optical Engineering, Boston, Massachusetts, September, 19, 1999.
- Ding, W., D. L. McCorkle, C.-Y. Ma, and L.A. Pinnaduwege, "Dissociation of Benzene in a Pulsed Glow Discharge," presented at the 52nd Annual Gaseous Electronics Conference, Norfolk, Virginia, October 5-8, 1999.
- Ding, W., L. A. Pinnaduwege, C. Tav, and D. L. McCorkle, "Enhanced O^- by Electron Attachment to High Rydberg States of O_2 in a Pulsed Discharge Plasma," presented at the Centennial Meeting of the American Physical Society, Atlanta, Georgia, March 20-26, 1999.
- Doktycz, M. J. and K. L. Beattie, "Development of Flowthrough Genosensor Chips, presented at the DOE Contractor and Grantee Workshop, Oakland, California, January 12, 1999. (Invited)
- Doktycz, M. J., "Micromachined Biosensor Arrays," presented at Lab Automation '99, San Diego, California, February 1999. (Invited)
- Doktycz, M. J., "Flowthrough Genosensors and Related Technology," presented at the Southeast Regional Meeting of the American Chemical Society (SERMACS-99), Knoxville, Tennessee, October 17-20, 1999. (Invited)
- Doktycz, M. J., A. Mendez, M. Reyes, B. Harker, K. Goldstein, J. Becker, A. Nagel, J. Fleming, and K. L. Beattie, "Flowthrough Genosensor Chips and Their Applications in Microbial Genomics," presented at the 7th Conference on Small Genomes, Arlington, Virginia, November 1999 (Invited).
- Egidi, P. V., "Regulatory Initiatives for Control and Release of Technologically Enhanced Naturally Occurring Radioactive Material," presented at Waste Management '99, Tucson, Arizona, March 2, 1999.
- Garrett, J. D., S. Mirzadeh, and R. N. Compton, "The Use of Radioactive Beam for Production of Endohedral Fullerenes via Ion-Implantation," presented at the American Physical Society Fall Meeting, Division of Nuclear Physics, Pacific Grove, California, October 21-23, 1999. (Invited)
- Gaudio, J., E. Savio, A. Robles, S. Muniz, A. Leon, S. Verdera, G. Martinez, J. C. Hermida, and F. F. Knapp, Jr., " ^{188}Re -HEDP in the Treatment of Pain in Bone Metastases," presented at the International Atomic Energy Agency Seminar on Therapeutic Applications of Radiopharmaceuticals, Hyderabad, India, January 18-22, 1999.
- Grandas, O. H., S. L. Stevens, R. L. Donnell, M. J. Costanza, R. H. Spencer, F. F. Knapp, Jr., A. M. Shoieb, K. J. Brown, T. T. Reddick, M. B. Freeman, and M. H. Goldman, "Effect of Intravascular Radiation on the Distribution of Macrophages, Platelet Derived Growth Factor and Transforming Growth Factor in the Swine Iliac Artery," presented at the Peripheral Vascular Surgery Society 24th Annual Spring Meeting, Washington, D.C., June 5, 1999.

- Hanson, B. L., A. Nartin, J. J. Harp, D. A. Parrish, C. G. Bunick, K. Kirschbaum, A. A. Pinkerton, and G. J. Bunick, "An Open Flow Helium Cryostat for Macromolecules," presented at the 57th Annual Pittsburgh Diffraction Conference, Columbus, Ohio, October 21-23, 1999.
- Hart, K. J., S. H. Harmon, D. A. Wolf, A. A. Vass, and M. B. Wise, "Detection of Chemical/Biological Agents and Stimulants Using Quadrupole Ion Trap Mass Spectrometry," presented at the 47th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, Texas, June 14, 1999.
- Hausleiter, J., A. Li, F. F. Knapp, Jr., N. Eigler, and J. Whiting, "Low Body Exposure in Case of Radioactive Balloon Leakage —A Biodistribution and Elimination Study of 188 Rhenium in Pigs," presented at Cardiovascular Research Therapy III, Washington, D.C., February 16-21, 1999. (Invited)
- Hausleiter, J., A. Li, F.F. Knapp, Jr., N. Eigler, and J. Whiting, "Low Body Exposure in Case of Radioactive Balloon Leakage —A Biodistribution and Elimination Study of 188 Rhenium in Pigs," presented at the 48th Annual Scientific Session of the American College of Cardiology, New Orleans, Louisiana, March 7-10, 1999. (Invited)
- Hingerty, B. E., S. Broyde, Z. Gu, A. Gorin, B. Mao, and D. J. Patel, "Computational Approaches to Carcinogen-DNA Structure Determination," presented at Frontiers in Computational Crystallography, Cambridge, United Kingdom, August 14-20, 1999.
- Hingerty, B. E., S. B. Singh, and S. Broyde, "Computed Structures of DNA Damaged by Activated Benzo(a)pyrenes," presented at The University of Tennessee, Knoxville, Tennessee, February 12, 1999.
- Hoyt, P. R., M. J. Doktycz, and D. P. Allison, "Comparing DNA Sequences by Atomic Force Microscopy," presented at Seattle '99: Scanning Probe Microscopy, Cantilever Sensors and Nanostructures, Seattle, Washington, May 30-June 1, 1999.
- Hu, Z., R. L. Jones, P. I. Oden, T. G. Thundat, C. L. Britton, and R. J. Warmack, "Effects of Selective Film Thickness on Sensitivity of Microcantilever Hydrogen and Mercury Sensors," presented at the March Meeting of the American Physical Society, Atlanta, Georgia, March 20–26, 1999.
- Hurst, G. B., S. Kennel, L. Foote, Y. Kim and M. V. Buchanan, "Affinity Mass Spectrometry Measurement of Targeted Cytokines Under Physiological Conditions," presented at the 47th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, Texas, June 12-18, 1999.
- Hurst, G. B., Y. Kim, K. Weaver, M. Doktycz, M. V. Buchanan, M. Lidstrom and A. Costello, "Characterization of bacteria using mass spectrometric detection of polymerase chain

reaction products,” presented at the 7th Laser Symposium, Korea Atomic Energy Research Institute, Daejeon, South Korea, November 5-6, 1999.

Ji, H.-F., R. Dabestani, G. M. Brown, P. V. Bonnesen, P. F. Britt, E. Finot, T. Thundat, and R. J. Warmack,. "A New Ion Sensor with High Sensitivity and Selectivity Based upon Ionic-Recognition of Self-Assembled Monolayer on Microcantilever,” presented at Self-Assembly and Langmuir-Blodgett Film Technology for Chemical and Biosensors, SERMACS, Knoxville, Tennessee, October 17-20, 1999. (Invited)

Jones, T. D., “Modeling Multiple Causes of Carcinogenesis,” presented at the Annual Meeting of the American Association for the Advancement of Science, Anaheim, California, January 24, 1999. (Invited)

Kim, Y., G. B.. Hurst, M. Doktycz, and M. V. Buchanan, “Improved Spot Homogeneity for DNA MALDI Matrices,” presented at the 47th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, Texas, June 12-18, 1999.

Kennel, S. J., “Cancer Therapy with Radioisotopes Targeted to Tumor Blood Vessels, presented at Cayey Univeristy College, Cayey, Puerto Rico, February 16, 1999. (Invited)

Kennel, S. J., V. Muzykantov, S. Albelda, and I. A. Davis, “Acute Damage to Murine Lung from Alpha-Particle Irradiation Results in Chronic Lethal Disease,” presented at the Symposium on Immunological and Biological Aspects of Therapeutic Protein Delivery to the Lung, Durango, Colorado, March 3–7, 1999.

Klein, J. A., F. F. Knapp, M. Du, S. Mirzadeh, and A. L. Beets. “Production of W-188 at Oak Ridge National Laboratory,” presented at 3rd International Conference on Isotopes, Vancouver, Canada, September 6-10, 1999. (Invited)

Knapp, F. F., “Programs and Directions in Nuclear Medicine at ORNL,” presented at the Life Sciences Division Information Meeting, Oak Ridge National Laboratory, Oak Ridge, Tennessee, September 28, 1999. (Invited)

Knapp, F. F., Jr., R.H. Spencer and M. Stabin 1999. "Use of Rhenium-188 Liquid-Filled Balloons for Inhibitionn of Coronary Restenosis After PTCA – A New Opportunity for Nuclear Medicine,” presented at the 9th Mediterranean Symposium on Nuclear Medicine and Radiopharmaceuticals, Lemesos, Cyprus, May 13-17, 1999.

Knapp, F. F., Jr., A. L. Beets, J. Pinkert, J. Kropp, W.-Y. Lin, and S.-Y. Wang, “Rhenium Radioisotopes for Therapeutic Radiopharmaceutical Development,” presented at the International Atomic Energy Agency Seminar on Therapeutic Applications of Radiopharmaceuticals, Hyderabad, India, January 18-22, 1999.

Knapp, F. F., Jr., “BMIPP for Cardiac Imaging - Current Status and Future Perspectives,” presented at the 3rd Annual Nuclear Medicine Conference, Korea Cancer Center Hospital, Seoul, South Korea, March 16, 1999. (Invited)

Knapp, F.F., Jr., "Rhenium-188 - A Promising Generator-Derived Radioisotope for Applications in Nuclear Medicine, Oncology and Interventional Cardiology," presented at the 3rd Annual Nuclear Medicine Conference, Korea Cancer Center Hospital, Seoul, South Korea, March 18, 1999. (Invited)

Knapp, F.F., Jr., "Production and Availability of Beta-Emitting Radioisotopes for Restenosis Therapy," presented at Cardiovascular Radiation Therapy III, Washington, D.C., February 17-19, 1999. (Invited)

Knapp, F.F., Jr., "Development and Clinical Applications of the Tungsten-188/Rhenium-188 Generator System," presented at Seoul National University Hospital, Seoul, South Korea, March 17, 1999. (Invited)

Kress, R. L., R. J. Mural, G. A. Armstrong, C. P. Ekkebus, and L. J. Hauser, "Automated DNA Sequencing System," presented at the 8th International Topical Meeting on Robotics and Remote Systems, Pittsburgh, Pennsylvania, April 25-29, 1999. (Invited)

Larimer, F.W., R. J. Mural, M. Parang, M. B. Shah, V. N. Olman, I. E. Vokler, J. R. Snoddy, and E. C. Uberbacher, "Annotation of Microbial Genomes," presented at the 3rd Annual Conference on Microbial Genomes, Genomic Science Series, Chantilly, Virginia, January 29, 1999. (Invited)

Larimer, F. W., R. J. Mural, M. Parang, M. B. Shah, V. N. Olman, I. E. Vokler, J. R. Snoddy, and E. C. Uberbacher, "Annotation of Microbial Genomes," presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)

Larimer, F. W., M. Land, P. D. Hyatt, and M. Shah, "Automated Annotation of Microbial Genomes," presented at the Life Sciences Division Information Meeting, Oak Ridge, Tennessee, September 28, 1999.

LoCascio, P. F., D. P. Hyatt, M. B. Shah, A. Geist, W. A. Shelton, R. Flannery, J. R. Snoddy, and E. C. Uberbacher, "High-Performance Computing Servers," presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)

Miller, J. C. and V. V. Golovlev, "Laser Characterization and Cleaning of Nineteenth Century Daguerreotypes," presented at the New York Regional Art Conservation Association Meeting, Metropolitan Museum of New York, New York, May 18, 1999.

Mobley, J., P. M. Kasili, S. J. Norton, and T. Vo-Dinh, "Application of Ultrasonic Techniques for Brain Injury Diagnosis," presented at Environmental Sensors and Remediation, Boston, Massachusetts, September 19-22, 1999. (Invited)

Mobley, J., P. M. Kasili, and T. Vo-Dinh, "Photoacoustic Measurements in Brain Tissue," presented at Environmental Sensors and Remediation, Boston, Massachusetts, September 19-22, 1999. (Invited)

- Mural, R., M. Parang, M. Shah, D. Hyatt, M. Land, F. Larimer, S. Petrov, D. Schmoyer, J. Snoddy, and E. Uberbacher, "Navigation, Visualization, and Query of Genomes: The Genome Channel and Beyond," presented at the Life Sciences Division Information Meeting, Oak Ridge, Tennessee, September 28, 1999.
- Murray, M. E. and R. L. Coleman, "Use of the FIDLER Scintillation Probe for the Characterization of Subsurface Radionuclide Contamination," presented at the International Symposium on the Restoration of Environments with Radioactive Residues, Arlington, Virginia, November 29-December 3, 1999. (Invited)
- Nagesha, K. and L. A. Pinnaduwege, "Magnetic and Electric Field Induced Enhancements in Laser Induced Anion Formation," presented at the 52nd Annual Gaseous Electronics Conference, Norfolk, Virginia, October 5-8, 1999.
- Nobuhara, K., C. Halldin, H. Hall, P. Karlsson, J. Hiltunen, D. W. McPherson, A. Savonen, K. A. Bergstrom, G. C. 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 Association of Nuclear Medicine Meeting, Barcelona, Spain, October 9-13, 1999.
- Oden, P. I., J. C. DePriest, and R. J. Warmack, "Microcantilevered Structures – Applications Other Than Scanning Force Microscopy Deflection Sensors," presented at Seattle '99: Scanning Probe Microscopy, Cantilever Sensors and Nanostructures, Seattle, Washington, May 30-June 1, 1999. (Invited)
- Oden, P. I., C. L. Britton, R. J. Warmack, M. J. Doktycz, S. F. Smith, R. Jones, and J. C. DePriest, "Micromechanical Sensing: Environmental Monitoring Possibilities," presented at Texas Instruments, Inc., Dallas, Texas, March 17, 1999. (Invited)
- Oden, P. I., "Probe Microscopy: From Imaging to MEMS Based Sensing Systems," Department of Physics & Astronomy, Indiana University, Bloomington, Indiana, February 26, 1999. (Invited)
- Oden, P. I., R. J. Warmack, C. L. Britton, M. J. Doktycz, S. F. Smith, R. L. Jones, and A. Subramanian, "Physical, Chemical and Biological Sensing - Another Direction for Probe Microscopy Instrumentation," presented at the Winter Workshop of Advances in Force Microscopy and Spectroscopy, Linz, Austria, January 30-February 3, 1999. (Invited)
- Parang, M., R. J. Mural, M. B. Shah, P. D. Hyatt, M. L. Land, J. R. Snoddy, E. C. Uberbacher, D. Schmoyer, M. B. Shah, I. E. Vokler, "Visualization, Navigation, and Query of Genomes: The Genome Channel and Beyond," presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)
- Perlow, R. A., J. S. Schor, B. E. Hingerty, N. E. Geacintov, D. A. Scicchitano, and S. Broyde, "Transcription of a p53 Mutational Hotspot: CpG Island Methylation and Modification by

Activated Benzo(a)pyrene,” presented at the Annual Meeting of the American Association for Cancer Research, Philadelphia, Pennsylvania, April 10-14, 1999.

Petrov, S., J. R. Snoddy, M. D. Galloway, S. A. Martin, M. Land, M. Parang, T. H. Rowan, D. D. Schmoyer, M. B. Shah, I. E. Vokler, and E. C. Uberbacher, “Data Management for Genome Analysis and Annotation: Engineering a Fundamental Infrastructure for Data that Supports Collaboration in Genome Annotation,” presented at the 7th DOE Contractor and Grantee Workshop, Oakland, California, January 12, 1999. (Invited)

Pinnaduwege, L. A., “A Novel Plasma Chemical Process for the Destruction of Volatile Toxic Compounds,” DOE Environmental Management Science Program Workshop, Oak Ridge, Tennessee, September 22, 1999. (Invited)

Pinnaduwege, L. A., W. Ding, and D. L. McCorkle, “Negative Ion Formation in Pulsed Plasmas,” presented at the 52nd Annual Gaseous Electronics Conference, Norfolk, Virginia, October 5-8, 1999.

Pinnaduwege, L. A., W. Ding, and D. L. McCorkle, “Enhanced Electron Attachment to Rydberg States in Hydrogen Volume Discharges,” presented at the Centennial Meeting of the American Physics Society, Atlanta, Georgia, March 20-26, 1999.

Pinnaduwege, L. A., W. Ding, D. L. McCorkle, and C. Y. Ma, “Enhanced Electron Attachment to Highly-Excited Molecules and Its Applications in Pulsed Plasmas,” presented at the 12th IEEE International Pulsed Power Conference, Monterey, California, June 27-30, 1999.

Sega, G. A., L. S. Webb, K. C. Goss, and J. C. Schryver “HPLC Analysis Used to Identify a Mouse Mutant Deficient in Plasma Serotonin,” presented at the Southeast Regional Meeting of the American Chemical Society, Knoxville, Tennessee, October 17, 1999.

Sega, G. A., A. A. Vass, J. C. Love, and S. A. Barshick, “GC/MS Analysis of Biochemicals Seen in Human Tissues as a Function of Time Since Death,” presented at the Southeast Regional Meeting of the American Chemical Society, Knoxville, Tennessee, October 17, 1999.

Shah, M.B., M. Parang, D. P. Hyatt, M. D. Galloway, R. J. Mural, K. Worley, and E. C. Uberbacher, “Genome Channel Analysis Engine: A System for Automated Analysis of Genome Channel Data,” presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)

Snoddy, J., S. Petrov, M. Galloway, S. Martin, M. Land, M. Parang, F. Larimer, D. Schmoyer, M. Shah, I. Vokler, and E. C. Uberbacher, “Towards an Integrated Data and Analysis Infrastructure for Genome Analysis and Annotation,” presented at Genome Sequencing & Biology, Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, May 19-23, 1999.

Snoddy, J., S. Petrov, M. Galloway, D. Hyatt, M. Land, D. Schmoyer, M. Parang, M. Shah, and E. Uberbacher, “Bioinformation Systems to Support Genome Annotation, Mouse Phenotyping, and Gene Expression Analysis,” presented at the Life Sciences Division

Information Meeting, Oak Ridge National Laboratory, Oak Ridge, Tennessee, September 28, 1999.

Snoddy, J. R., M. Parang, S. Petrov, R. J. Mural, M. B. Shah, Y. Xu, S. A. Martin, P. F. LoCascio, K. Worley, M. Zorn, S. Spengler, D. Davy, C. Overton, and E. C. Uberbacher, "The Genome Annotation Collaboration: An Overview," presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)

Snoddy, J. R., M. Land, S. Martin, M. Parang, I. Vokler, D. Schmoyer, M. Shah, S. Petrov, and E. C. Uberbacher, "Genome Annotation Data Management and Data Administration: Developing Summary Results for User Navigation, Genome Research, Improved Data Processing, and Quality Metrics," 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999.

Spencer, R.H., O. S. Grandas, S. L. Stevens, R. L. Donnell, M. Stabin, F. F. Knapp, Jr., M. Costanza, A. H. Shoieb, T. T. Reddick, M. B. Freeman, K. Brown, and M. H. Goldman, "Dosimetry Considerations of Rhenium-188 Perrhenate Liquid-Filled Balloons in the Prevention of Restenosis of Injured Swine Iliac Arteries," presented at the Annual Meeting of the American Heart Association, Atlanta, Georgia, November 7-11, 1999.

Taranenko, N. I., N. T. Potter, S. L. Allman, and V. V. Golovlev, "Gender Identification by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry," presented at the 47th ASMS Conference on Mass Spectrometry and Allied Topics, Dallas, Texas, June 13-17, 1999.

Tav, C. and L. A. Pinnaduwege, "Dissociative Electron Attachment to Laser-Excited Benzene," presented at the 52nd Annual Gaseous Electronics Conference, Norfolk, Virginia, October 5-8, 1999..

Thundat, T. G., A. Hu, B. Y. Chen, and R. J. Warmack, "Elastic Effects of Coating Films on Resonance Response of Microcantilevers," presented at the March Meeting of the American Physical Society, Atlanta, Georgia, March 20-26, 1999.

Thundat, T. G., "Microcantilever Sensors," presented at the Materials Sciences Department, Ohio State University, Columbus, Ohio, November 5, 1999 (Invited).

Thundat, T. G., "Microcantilever Chemical Sensors," presented at the Micro Nano Technology Conference, Pasadena, California, April 11-15, 1999. (Invited)

Thundat, T. G., "Micromechanical Chemical and Biological Sensors," presented at the University of California, Berkeley, Berkeley, California, April 16, 1999. (Invited)

Thundat, T. G., "Chemical Sensing Using Microcantilevers," presented at the American Chemical Society, Ohio Chapter Meeting, Columbus, Ohio, May 1999. (Invited)

- Thundat, T. G., "Chemical, Physical, Biological Detection Using Microcantilevers," presented at the American Chemical Society, Columbus Section, Ohio State University, Columbus, Ohio, September 8, 1999. (Invited)
- Timm, D. E., H. A. Mueller, P. Bhanumorthy, J. M. Harp, and G. J. Bunick, "Structure and Mechanism of a Carbon-Carbon Bond Hydrolase," presented at the International Union of Crystallography XVIII Congress and General Assembly, Glasgow, Scotland, August 4–13, 1999.
- Uberbacher, E. C., S. Petrov, M. Galloway, S. Martin, M. Land, M. Parnag, F. Larimer, D. Schmoyer, M. Shah, I. Vokler, V. Olman, R. J. Mural, and J. Snoddy, "An Infrastructure for Genome Analysis and Annotation," presented at the 11th International Genome Sequencing and Analysis Conference, The Institute for Genomic Research, Miami Beach, Florida, September 18-21, 1999.
- Vo-Dinh, T., "Advanced Biosensors and Biochips: Frontiers in Environmental and Biomedical Diagnostics," presented at the Life Sciences Division Information Meeting, Oak Ridge National Laboratory, Oak Ridge, Tennessee, September 28, 1999.
- Vo-Dinh, T., G. D. Griffin and J. P. Alarie, "Advanced Nanosensors and Biochips for Chemical and Biosensing," presented at GOMAC (Government Microcircuits Applications Conf.), Monterey, California, March 9, 1999. (Invited)
- Wang, S.-J., B.-T. Hsieh, W.-Y. Lin, G. Ting, and F. F. Knapp, "Comparison of Various Rhenium-188 Labeled Diphosphonates for the Palliation of Metastatic Bone Pain," presented at the Third International Conference on Isotopes, International Isotope Society, Vancouver, Canada, September 6–10, 1999. (Invited)
- Warmack, R. J., C. L. Britton, S. F. Smith, P. I. Oden, R. L. Jones, T. G. Thundat, P. F. Britt, G. M. Brown, W. L. Bryan, J. C. DePriest, and J. M. Rochelle, "Micromechanical Array for Detection of Vapors from Explosives," presented at the Sensors for the Detection and Analysis of Energetics, Explosives, and Pyrotechnics Symposium, Arlington, Virginia, January 25, 1999. (Invited)
- Watkins, J.H., 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," American Statistical Association 1999 Preceding, Section on Statistics in Epidemiology, presented at the Annual Meeting of the American Statistical Association, Baltimore, MD. (1999).
- Webb, L. S., G. A. Sega, and D. K. Johnson, "Analysis of Fatty and Organic Acids in the Mouse Using GC/MS," presented at the Southeast Regional Meeting of the American Chemical Society, Knoxville, Tennessee, October 17, 1999.
- Weinberger, J., H. I. Amols, P. B. Schiff, F. Trichter, T.S.-T. Wang, A. Berke, D. Brogno, J. Flier, F. F. Knapp, and H. S. Wasserman, "Initial Results of the CURE Safety Trial Coronary

- Brachytherapy with Radioactive-Liquid-Filled Balloons,” presented at the American College of Cardiology Meeting, New Orleans, Louisiana, March 6–11, 1999.
- Xu, D., M. A. Unseren, Y. Xu, and E. C. Uberbacher, “Assessing the Specificity of an Energy Function Through Threading at the Protein Secondary Structure Level,” presented at the 3rd Community Wide Experiment on the Critical Assessment of Techniques for Protein Structure Prediction, Asilomar, California, December 13, 1999.
- Xu, Y., D. Xu, and E. C. Uberbacher, “Solving Globally-Optimal Threading Problems in ‘Polynomial time’,” presented at the 3rd International Annual Conference on Computational Molecular Biology, Lyon, France, April 12–17, 1999.
- Xu, Y. and D. Xu, “PROSPECT: A Computer System for Globally-Optimal Threading,” presented at the 7th International Conference on Intelligent Systems for Molecular Biology (ISMB '99), Heidelberg, Germany, August 6, 1999.
- Xu, Y., D. Xu, O. H. Crawford, J. R. Einstein, M. A. Unseren, G. Zhang, and E. C. Uberbacher, “PROSPECT: A Computer Program for Globally-Optimal Threading,” presented at the 13th Symposium of the Protein Society, Boston, Massachusetts, July 24–28, 1999.
- Xu, Y., M. B. Shah, D. P. Hyatt, R. J. Mural, and E. C. Uberbacher, “GRAIL-EXP: Multiple Gene Modeling Using Pattern Recognition and Homology,” presented at the 7th DOE Contractor/Grantee Workshop, Oakland, California, January 12, 1999. (Invited)
- Xu, Y., D. Xu, O. H. Crawford, and J. R. Einstein, “Threading-Based Protein Structure Prediction,” presented at the Life Sciences Division Information Meeting, Oak Ridge National Laboratory, Oak Ridge, Tennessee, September 28, 1999.
- Xu, Y., O. H. Crawford, J. R. Einstein, M. A. Unseren, D. Xu, G. Zhang, and E. C. Uberbacher, “A Template-Based Secondary Structure Prediction System,” presented at the 3rd Community Wide Experiment on the Critical Assessment of Techniques for Protein Structure Prediction, Asilomar, California, December 13, 1999.
- You, Y., S. Mentzer, N.L.A. Cacheiro, R. Bergstrom, J. Schimenti, and H. Chao, “Deletion Analysis of the *D17Aus9* Locus Revealed Lethal Phenotypes,” presented at the 13th International Mouse Genome Conference, Philadelphia, Pennsylvania, November 1999.
- Young, R. A., “Health Risk Assessment: Acute Exposure Guideline Levels,” presented at the Life Sciences Division Information Meeting, Oak Ridge National Laboratory, Oak Ridge, Tennessee, September 28, 1999.
- Yuracko, K.L., B. Tonn, K. Williams, L. Bishop, and P. Yerace, “The Life Cycle Analysis Toolbox” presented at Waste Management '99, Tucson, Arizona, February 28–March 4, 1999.

Yuracko, K. L., B. Tonn, M. Morris, and L. Bishop, “A Life Cycle Analysis System to Support D&D, Pollution Prevention, and Asset Recovery,” presented at Waste Management '99, Tucson, Arizona, February 28-March 4, 1999.

Yuracko, K.L. and B.E. Tonn, “Using information technology to push the boundaries of life cycle analysis for D&D decision-making,” presented at the DD&R Topical Meeting on Site Restoration of Government and Commercial Facilities, Knoxville, Tennessee, September 12-17, 1999.

Zuhr, R. A., J. D. Budai, P. G. Datskos, A. Meldrum, K. A. Thomas, R. J. Warmack, C. W. White, L. C. Feldman, M. Strobel, and K.-H. Heinig, “Nanostructured Arrays Formed by Finely Focused Ion Beams,” presented at the March Meeting of the American Physical Society, Atlanta, Georgia, March 22–26, 1999.

(113 Presentations; 48 Invited)