

JAMES F. BRINKLEY, M.D., Ph.D.

<http://sig.biostr.washington.edu/~brinkley>

Curriculum Vitae

May 10, 2007

PERSONAL DATA

Born December 1, 1948; Eugene, Oregon

EDUCATION

Amherst College, Amherst, Massachusetts, B.A. (Mathematics), 1970

University of Washington, Seattle, Washington, M.D., 1974

Stanford University, Palo Alto, California, Ph.D. (Medical Computer Engineering), 1984

PRESENT POSITION

Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 2007 – present.

Joint Professor, Department of Medical Education and Biomedical Informatics (Division of Biomedical Informatics), University of Washington, 2007 – present.

Adjunct Professor, Department of Computer Science and Engineering, University of Washington, 2007 – present.

Director, University of Washington Structural Informatics Group, 1997-present.

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PREVIOUS POSITIONS

Postdoctoral Fellow and Research Associate, University of Washington, Department of Bioengineering, Ultrasound Division, Seattle, Washington, 1974-1977

Research Assistant, Postdoctoral Fellow, and Interdisciplinary Ph.D. Graduate Student, Stanford University, Palo Alto, California, 1977-1984

Research Associate, Knowledge Systems Laboratory, Department of Computer Science, Stanford University, Palo Alto, California, 1984-1988

Research Assistant Professor, Department of Biological Structure, University of Washington, Seattle, Washington, October, 1988 - June, 1994

Adjunct Research Assistant Professor, Department of Computer Science, University of Washington, October, 1988 - June 1994

Research Associate Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 1994-2000.

Adjunct Research Associate Professor, Department of Computer Science and Engineering, University of Washington, 1994-2000.

Adjunct Research Associate Professor, Division of Biomedical and Health Informatics, Department of Medical Education. University of Washington, 1997-2000.

Research Professor, Department of Biological Structure, University of Washington, Seattle, Washington, 2000 – 2007.

Adjunct Research Professor, Department of Computer Science and Engineering, University of Washington, 2000 – 2007.

Joint Research Professor, Department of Medical Education and Biomedical Informatics(Division of Biomedical Informatics), University of Washington, 2000 – 2007.

RESEARCH INTERESTS

Structural informatics, a branch of medical informatics dealing with methods for generating, storing, retrieving, analyzing and displaying information about the physical structure of the body. (Coined the term and defined the field of "Structural Informatics" in 1991, see Refereed Publications #9).

NATIONAL COMMITTEES, SERVICE AND HONORS

Fellow, American College of Medical Informatics (ACMI), elected summer 1999.

Editorial Board, *Journal of Biomedical Informatics*, January 2001 - present.

Editorial Board, *Methods of Information in Medicine*, 2003-present..

Scientific Affairs Committee, American College of Medical Informatics (ACMI), 2003-present.

National Advisory Board, P41 Research Resources Grant, UCLA Laboratory of NeuroImaging, Arthur Toga, PI, 2000-present.

NIH Murine Atlas of Genitourinary Development (GUDMAP) Consortium Advisory Board 2004-present.

Invited participant, National Library of Medicine workshop, Visible Human Project: Scope and Scale for the Future, Jan 16-17, 2007.

Reviewer, American Medical Informatics Association Fall Symposium, 1989-present.

Editorial Board, *Journal of the American Medical Informatics Association*, 1999 - 2004.

Scientific Program Committee, International Medical Informatics Association (IMIA) Fall Symposium, 2004.

Scientific Program Committee, American Medical Informatics Association Fall 2000, Fall 2001 Symposia.

National Library of Medicine Board of Scientific Counselors, 1993-1997.

National advisory board, University of California at San Francisco, Medical Information Sciences Graduate Program, March 1999-2002.

American Association of Medical Colleges, Medical Education Software Resources Initiative, Task Force member, January 1996 - December 1996.

National Institutes of Health Special Study Sections

Various, 1995-present

Human Brain Project 1999-2006

Several from 1999-2002

Spring 2003, Winter 2004, Fall 2004, Winter 2005, Winter 2006

Biomedical Informatics Information Science Technology Initiative 2002-2003

Fall 2002, Winter 2003

NIDDK RFA Murine Atlas of Genitourinary development – database

Summer 2004

NLM Ad hoc study sections

Summer 2005 teleconference, chair

Summer 2006 teleconference

PROFESSIONAL ORGANIZATIONS

ACM (Association for Computing Machinery)

AMIA (American Medical Informatics Association)

ACMI (American College of Medical Informatics)

Society for Neuroscience

ACTIVE GRANTS

National Institute on Deafness and Other Communication Disorders RO1 DC/MH02310, "Structural Information Framework for Brain Mapping", a Human Brain Project grant, James F. Brinkley **Principal investigator**, 8/1/02-7/31/07. \$250,000 average direct cost/year, \$286,471 total cost/year..

UW General Clinical Research Center (GCRC) Pilot and feasibility grant application, "Beyond the spreadsheet: information management for GCRC investigators", 3/1/06-6/30/07. \$25,000 direct costs **Principal investigator**.

NSF DBI-0543631, "Multimedia information retrieval for biological research", Linda Shapiro, Principal Investigator, 7/1/06-6/30/09, \$388,494 total cost/year. Co-investigator.

NIH RO1 HL08770 “Realizing the Potential of Reference Ontologies for the Semantic Web”, in response to PA-05-063, Collaborations with National Centers for Biomedical Computing, 2/15/07-12/31/10, \$462,884 direct costs/year, \$669,840 total costs/year, James F. Brinkley, **Principal Investigator**.

PENDING GRANTS

National Institute on Deafness and Other Communication Disorders RO1 DC/MH02310, "Structural Information Framework for Brain Mapping", competitive renewal, James F. Brinkley **Principal investigator**, 8/1/07-7/31/12.

National Institutes of Health, “Institute of Translational Health Sciences (ITHS)”, submitted in response to RFA-RM-07-002, Institutional Clinical and Translational Science Award (CTSA), Nora Disis, Principal investigator. Co-investigator for informatics core.

PREVIOUS GRANTS

NIH SBIR R43 HG004295 with Yumetech, Inc., “Using visualization as an interface to heterogeneous gene expression data”, submitted in response to PA-05-003 Integration of heterogeneous data sources. 9/26-06-3/31/07, \$100,000 total costs. **Principal investigator** of UW subcontract.

National Library of Medicine P20 LM07714, “Interdisciplinary Center for Structural Informatics”, a Biomedical Information Science Technology (BISTI) Center Planning Grant, James F. Brinkley **Principal Investigator**, 1/1/03-11/30/06. \$420,000 average direct cost/year.

Defense Advanced Research Projects Agency (DARPA). Virtual Soldier Project. Co-investigator. Cornelius Rosse, Principle Investigator of UW component, 2004-2005.

National Library of Medicine RO1 LM 06822 "Foundational Model of Anatomy", Cornelius Rosse PI. Co-investigator, 6/1/99-5/30/03, \$300,000 average direct cost.

National Library of Medicine RO1 LM0316, "Structure-based Visual Access to Biomedical Information", James F. Brinkley **Principal Investigator**, 2001-2003, \$250,000 average direct cost/year.

University of Washington Initiatives Fund (UIF) to establish a degree program in Biomedical Informatics, with Ira Kalet (Principal Investigator). Co-investigator.

National Library of Medicine Contract NO1 LM-0-3528 , "Anatomical knowledge sources enhancing UMLS applications", Cornelius Rosse PI , Co-investigator, 5% effort, 9/30/2000-9/29/2001, \$150,000 average direct cost.

Equipment grant from Intel Corporation, UW School of Medicine (SOM) subproject of a \$5.9M gift to UW. With Sherrilynne Fuller, (Principal Investigator for SOM subproject). 1997-1999. Co-Investigator and primary initiator of the SOM subproject. Thirty-two Intel computers received by the Department of Biological Structure).

University of Washington Initiatives Fund (UIF) development grant to create an annotated image teaching database, Co-principal investigator, with John Clark and Kate Mulligan, 2000-2001.

National Library of Medicine Individual National Research Service Award for William Lober, M.D., "Knowledge-based Image Annotation", **Sponsor**.

National Library of Medicine RO1 LM0316, "Structure-based Visual Access to Biomedical Information", 5/1/97-4/30/00. \$891,000 total cost. **Principal Investigator**.

National Library of Medicine RO1 LM06243, "Spatial-symbolic brain information management system", with Douglas Bowden, UW Primate Center (Principal Investigator). Co-investigator.

National Library of Medicine Contract 467-MZ-802300, "Adopting the NGI as a Tool for Healthcare and Information Access: Assessment, Selection and Planning", with Brent K. Stewart (Principal Investigator), 1998-1999. Co-investigator.

Achievement Rewards for College Scientists, (ARCS) , \$25,000 award for student training in the Digital Anatomist Program, \$5000/year starting 1991. **Principal Investigator**.

National Cancer Institute 1R29 CA59070-01 FIRST award, "Medical Image Segmentation Using Knowledge of Anatomy", 7/1/92-6/30/97. **Principal Investigator**.

National Institute of Child Health and Human Development. "Ultrasonic Measurement of Fetal Volume and Weight", with W.D. McCallum (Principal Investigator), 7/1/79-6/30/81. Co-investigator.

Individual National Research Service Award (NIH Fellowship Grant), National Institute of General Medical Science. "Ultrasonic Three-Dimensional Organ Modeling", 7/1/81 - 6/30/84, \$56,388. **Principal Investigator**.

National Library of Medicine, "Wide Area Client-Server Model for Accessing Structural Information, subcontract to "Regional Medical Libraries Contract Enhancement Proposal N01-LM-1-3506, Sherrilynne Fuller, Principal Investigator, 11/1/92-10/30/93. Principal Investigator on subcontract.

National Library of Medicine grant number 1R01LM04925, "Image-based Knowledge System in Anatomy", with Cornelius Rosse, Principal Investigator, 7/1/88-6/30/93. Co-Investigator.

National Science Foundation IRI-9116809, "A Visual Database System for Computer Vision Research", with Linda Shapiro (Principal Investigator), 3/1/92-2/28/94. Co-Investigator.

Equipment grant from IBM: RS6000 workstation and X Terminal, 1992.

National Library of Medicine Individual National Research Service Award for Loyd Myers, F37 LM00017-01, "Structural Medical Image Segmentation", 10/1/92-9/30/95, **Sponsor**.

TEACHING ACTIVITIES

Currently supervised personnel

Graduate students

Hao Li, PhD student in Biomedical and Health Informatics, 2001-present (supervisor)

Wayne Warren, PhD student in Biomedical Informatics, 2003-present (supervisor)

Max Neal, PhD student in Biomedical and Health Informatics, 2006-present (supervisor)

Wilmot Wei-mau Li, PhD student in CSE, 2004-present (co-supervisor, David Salesin chair)

Undergraduate students

J.E. Mejino, UW undergraduate, pre-CS major 2002-present (supervisor)

Postdoctoral fellows

Research staff

Andrew Poliakov – Research Scientist

Eider Moore - Programmer

Todd Detweiler – Research Scientist

Joshua Franklin - System Administrator/Programmer

Previously supervised staff at UW

Graduate Students

Xiang Li, MS student in Biomedical Informatics, 2005-2006 (supervisor)

Chaitee Sengupta, MS student in Speech and Hearing Sciences, 2006-present (supervisor for hourly work study)

Jill Lin, PhD student in Biomedical and Health Informatics, 2004-present (thesis committee, Linda Shapiro chair)

Jenny Thompson, MS student in Speech and Hearing Sciences, 2004-present (co-supervisor, David Corina chair)

Sally Lee, PhD student in Biomedical Informatics, 2004-2005 (co-supervisor, Peter Tarczy-Hornoch, chair)

Hansang Cho, PhD student in EE, 2004-2005 (co-supervisor, Linda Shapiro chair)

Kelan Wang, MS student in Biomedical Informatics 2004-2005 (co-supervisor, Peter Tarczy-Hornoch, chair)

Veronica Smith, MS student in EE, 2003-2005 (co-supervisor, Linda Shapiro chair)

Christine Fong, MS student in Biomedical Informatics, 2003-2005 (supervisor)

Shobhit Mathur, PhD student in CSE, 2005 spring quarter (co-supervisor, Dan Suciuc chair)

Chris Re, PhD student in CSE, 2004-2005 (co-supervisor, Dan Suciuc chair)

Erin Gibson, MS student in Speech and Hearing Sciences, 2002-2004 (co-supervisor, David Corina chair)

Yana Kadiyska, PhD student in CSE, summer 2002-December 2003 (co-supervisor, Dan Suciuc chair)

Salvador Ruiz-Correa, PhD student in EE, summer 2002-2004 (co-supervisor, Linda Shapiro chair)

Vishrut Srivastava, MS student in Biomedical and Health Informatics, 2002 (supervisor)

Jessica Wilkinson, PhD student in Biomedical and Health Informatics, 2002 (supervisor)

Shawn Bonham, MS student in Computer Science, 2001-2002 (supervisor)

Karen Kinbar, MS student in Speech and Hearing Sciences, 2000-2002 (co-supervisor, David Corina chair)

Ravensara Travillian, MS student in Biomedical and Health Informatics, 2000-2001 (supervisor)

Zhenrong Qian, PhD student in Computer Science, 2001-present (quals committee, Linda Shapiro chair)

Kevin Hinshaw - Ph.D. - student in Computer Science, 1992-2000 (supervisor).

Evan Albright - M.S. student in Electrical Engineering, 1999-2000 (co-supervisor, Linda Shapiro chair).

Theresa Storheden – Visiting MS CS student from Sweden, supervisor for thesis project, 1999-2000

Jakob Skott – Visiting MS CS student from Sweden, supervisor for thesis project, 1999-2000

Keith Steury -Ph.D. student in Cognitive Psychology, 1998-1999 (co-supervisor, with David Corina).

Rex Jakobovits - Ph.D. student in Computer Science, 1995-1999 (supervisor).

Jake Wegelin - Ph.D. student in Statistics, 1997-1999 (co-supervisor, with Paul Sampson).

Ken Thornton - PhD student in EE, 1993-1996 (thesis committee)

David Meyers - PhD student in CS, 1994 (grad faculty representative for PhD thesis).

James Ahrens - PhD student in EE, 1994-1996 (thesis committee)

Michael Geist, medical student, 1992-1993. (supervisor).

Teresa Lassek - MS student in Computer Science, 1992 (supervisor).

Andy Goodman, PhD student in EE, 1989-1990 (co-supervisor, with Bob Haralick).
Dan Benson PhD student in EE, 1990-1992. (co-supervisor, with Greg Zick).
Soohyung Kim MS student in EE, 1992 (co-supervisor, with Linda Shapiro).
Masaharu Kobashi, MS student in CS, 1991-1992 (co-supervisor, with Linda Shapiro).
John Strupp, MS student in EE, 1990-1992 (co-supervisor, with Bob Haralick).
Radhika Thekkath, Phd student in CS, 1992-1995 (grad faculty representative for PhD thesis).
Chun-Fe Yeung, PhD student in CS, 1989 (grad faculty representative for PhD thesis).
Gene Lee, medical student, 1989-1990.
Ken Gershing, medical student, 1989-1991.

Postdoctoral

Kate Mulligan – lecturer, 1998-2001 (supervisor for 10% time on brain grant).
Bill Lober, M.D., postdoctoral fellow, 1998-2001 (supervisor)
Jill Gardner - Research assistant professor in Radiology (supervisor for 20% time on brain grant).
Andrew Poliakov, Ph.D. - postdoctoral fellow, 1998-2000 (supervisor)
Bharath Modayur, Ph.D. - postdoctoral fellow, 1995-1997 (supervisor).
Loyd Myers - Postdoctoral fellow, 1992-1995 (sponsor).
Greg Heil - Postdoctoral fellow, January 1994-December 1995.
Janet E. Durik, MD - MS in Biological Structure, 1994
joint Radiology/Biological Structure MS program (supervisory committee).

Undergraduates

Peter Lincoln, UW senior undergraduate major, 2005-present (supervisor of senior honors project)
Nathan Bales, UW CSE undergraduate, 2004-2005(co-supervisor, with Dan Suciu)
Kelly Boccia, Biomedical Informatics Summer 2004 Undergraduate Research Program (supervisor)
Fraser Kitchell, Amherst College, 10 weeks summer 2004 (supervisor).
Xenia Guertsenberg, UW undergraduate in CSE, 2002-December, 2003 (supervisor)
Chris Grierson, UW undergrad in applied math 2001-2003 (supervisor)
Chevas Balloun, UW undergrad, 2002-present (supervisor)
J.J. Cheng, undergrad in Computer Science, 2002-2002(supervisor)
Ho Joon “Felix” Lim, undergrad in Computer Science, 2001-2002 (co-supervisor, with Linda Shapiro)
Eider Moore, Harvey Mudd undergrad in computer science, summer 2001-2002 (supervisor)
Greg Distelhorst, Yale undergraduate, summer 2002 (supervisor)
Kevin Yang, Amherst undergraduate, summer 2002 (supervisor)
Evgeny Roubinchtein – undergraduate student in Computer Science, 1999-2000 (supervisor).
Kuang Chen - undergraduate Computer Science major hopeful, 2000 (Gen Studies project)
Kelly Mayes - Undergraduate student in Computer Science, 1999 (co-supervisor for senior project).
Ben Wong --undergraduate in Computer science, 1997-1998 (supervisor).
Bibek Pandey - undergraduate student in Computer Science, 1997-1998(supervisor).
Deepa Dinendra - part-time student, 1996-1997 (supervisor)
Scott W. Bradley - undergraduate student in Computer Science, 1995-1997 (supervisor).
Bethany SaintClair - undergraduate student in Computer Science 1997 (supervisor for senior project)
Phil Shen - undergraduate in Computer Science, 1992-1993. CS Project.
Tanya Derugin, premedical student, 1990-1992 (supervisor).
Steve Barney, pre-doctoral student , 1989-1990.

Staff

Richard Martin – Research Scientist
Xenia Guertsenberg, Programmer
Kevin Hinshaw – Research Scientist
Scott Brockenbrough, Acting Instructor
Augusto Agoncillo – Research Scientist
Chris Grierson, System Administrator

Course Participation

MEBI 534, Biology and Informatics, 1999-present, Course director starting Fall 2002-present
MEBI 591C/CSE 590R, Structural Informatics Research Seminar, Course director, 1997-present
MEBI 530, Introduction to Medical Informatics, 1999-2004
MEBI 532, Java section for Introduction to Computing for Informaticists, 2001
MEBI 590, Special Topics in Biomedical and Health Informatics, 1995-present
MEBI 591, Biomedical and Health Informatics Research Colloquium, 2000-2005
MEBI 700, Independent study or research in biomedical informatics. 1999-present
CSE498, Senior Project, 1995-present
CSE520, Computer Science Colloquium, 1995
CSE590BR, Structural Informatics Research Seminar (course co-director), 1997-2006
CSE 600, Independent Study or Research, 1995-present
CSE 800, Doctoral Dissertation, 1995-present

Teaching Administration

Division of Biomedical and Health Informatics: Admissions committee, student quals committee

UNIVERSITY OF WASHINGTON COMMITTEES AND SERVICE

Department of Biological Structure, Faculty Planning Committee, 2003-present.

School of Medicine Committee on Research and Graduate Education (CORGE), 2003-2006.

UW Faculty Senate, 2004-2006

Department of Biological Structure, Faculty Development Committee, 2002.

Division of Biomedical and Health Informatics: Faculty search committee, 2001.

Department of Computer Science and Engineering: Reviewer of faculty applicants, 2001-present.

Integrated Academic Medical Information Systems (IAIMS) Educational Systems advisory committee, 1994-1997.

Integrated Academic Medical Information Systems (IAIMS) Futures/Forecasting/Planning Group, 1994-1997.

Committee to prepare a University Initiative Fund (UIF) proposal for a graduate degree in Medical Informatics, 1998-1999.

Department of Biological Structure, Departmental Web Server Committee, chair, March 1, 1995-1997.

Department of Biological Structure, Computer Graphics Committee, Oct 1989-1992.

University of Washington IAIMS Research Planning Committee, Jan 1991-Dec 1992.

NATIONAL INVITED TALKS

- 6/21/89 National Library of Medicine Planning Panel on Electronic Imaging, Washington, D.C.
- 7/17/90 National Cancer Institute Workshop on 3D Display and Analysis for Cancer Treatment Planning, Washington, D.C. "Knowledge-Based Medical Imaging".
- 2/12/91 Stanford University Medical Informatics Research Colloquium, "The University of Washington Digital Anatomist Program".
- 10/15/92 NorthWestNet Annual Meeting, Portland, "The University of Washington Digital Anatomist Program and its Application to Wide Area Structural Information Retrieval".
- 10/25/92 National Institute of Mental Health, The Human Brain Project, Anaheim, Ca.
- 2/21/94 American Association for the Advancement of Science Annual meeting, San Francisco. The Digital Anatomist Program, In Imaging Systems for Health Education and Health Care, Michael Ackerman, organizer.
- 2/22/94 National Network of Libraries of Medicine: Technology Awareness/Transfer Conference, University of California at San Francisco, Feb 22, 1994, "The Digital Anatomist Project".
- 4/16/94 Iowa State University, "The Digital Anatomist Program".
- 5/24/94 American Society for Information Science Mid Year Meeting, Portland, Oregon, "Empowering Medical Applications via the Network", panelist with William Hersh and Robert Greenes.
- 11/6/94 Tutorial: Knowledge-based Medical Image Representation, Analysis, and Management, with Casimir Kulikowski and Leiguang Gong, Eighteenth Symposium for Computer Applications in Medical Care, November 5, 1994.
- 2/25/98 National Institute of Dental Research workshop on the Virtual Head and Neck, Bethesda, "Building an anatomy information system".
- 2/27/98 National Institutes of Health Bioengineering Symposium, Bethesda, "The Digital Anatomist Project".
- 2/27/98 National Institutes of Health Bioengineering Symposium, Bethesda, "The UW Human Brain Project".
- 11/2/98 Second Visible Human Project Conference, panelist. "Knowledge Representation and Structured Information in the Visible Human Project".

- 2/26/99 Stanford University Medical Informatics Research Colloquium, "The Digital Anatomist Information System".
- 3/22/99 National Institutes of Health Human Brain Project Workshop on Interoperability of Brain Project Databases.
- 6/26/00 "Web-based experiment management and visualization for multimedia brain mapping data", International Conference on Mathematics and Engineering Techniques in Medicine and Biological Sciences (METMBS '2000), Las Vegas, Nevada.
- 10/12/00 "Web-based integration and visualization of multimedia human cortical language map data", Annual Fall Meeting of the Biomedical Engineering Society, Seattle.
- 11/3/01 "Tool for Language Mapping", Society for Neuroscience Satellite Symposium on Neuroimaging databases and analytical tools, San Diego.
- 1/14/03 National Institutes of Health, Biomedical Information Science Technology Initiative (BISTI) planning workshop, Washington, DC.
- 1/29/05 "Towards Open Source, Standardized Resources for Digital Anatomy", as part of a panel on "Use and Value of an Open 3D Standard for Medical Applications: Impact, Plans and Progress of the Medical Working Group of the Web3D Consortium", presented at the 13th Annual Conference on Medicine Meets Virtual Reality, Long Beach, Jan 26-29, 2005.
- 12/11/06 Structure-based "in-between" strategies for data integration: lessons from the Human Brain Project Plenary talk at NIH Conference on Knowledge Environments in Biomedical Research
- 1/24/07 "Managing, Integrating and Visualizing Biomedical Research Data: Lessons from the Human Brain Project", Vanderbilt University informatics research seminar
- 6/26/07 Pending: Vanderbilt conference on Frontiers in Imaging Science

UNIVERSITY OF WASHINGTON INVITED TALKS

- 12/6/88 University of Washington Computer Science Research Seminar "Towards the Scientist's Workbench".
- 1/16/90 University of Washington Computer Science Artificial Intelligence in Medicine Seminar, "Towards a Knowledge Base of Structural Biology".
- 11/14/90 University of Washington Scientific Visualization Seminar , "The University of Washington Digital Anatomist Program".
- 1/14/91 University of Washington Imaging Research Seminar, "Interactive Medical Image Segmentation Using Knowledge of Anatomic Shape".

- 6/16/92 University of Washington IAIMS site visit, "The University of Washington Digital Anatomist Program".
- 6/18/92 IBM - University of Washington Research Workshop on Digital Radiology, "The University of Washington Digital Anatomist Program" and "Knowledge-Based Medical Image Segmentation".
- 4/12/93 University of Washington Imaging Research Seminar, "Structural Informatics, the UW Digital Anatomist Program and Medical Imaging".
- 4/28/93 University of Washington Health Information Sciences Lecture Series, "The UW Digital Anatomist Program and its Relationship to Structural Information and IAIMS".
- 3/30/94 University of Washington Health Information Sciences Lecture Series, "Structural Informatics and the Digital Anatomist Program".
- 5/1/95 University of Washington Health Information Sciences Lecture Series, "The Human Brain Project: A Structural Information Framework for Brain Mapping"
- 1/23/96 University of Washington Health Information Sciences Lecture Series, "The Digital Anatomist on the World Wide Web", with Scott W. Bradley.
- 4/1/96 University of Washington Imaging Research Seminar, "Image-Based Systems in Anatomy".
- 4/1/97 University of Washington Health Information Sciences Lecture Series, "Structural Informatics Research in the Digital Anatomist Program".
- 5/27/97 University of Washington Computer Science Research Seminar, "Structural Informatics Research in Biological Structure".
- 8/29/01 University of Washington Neurosurgery seminar, "UW Human Brain Project".
- 10/29/01 University of Washington Imaging Research Seminar, "The UW Human Brain Project".
- 2/12/02 University of Washington, MedEd 590, Special Topics in Biomedical and Health Informatics, "The UW Structural Informatics Group".
- 2/26/02 University of Washington, MedEd 591, Biomedical and Health Informatics Research Colloquium, "Discussion of the UW Human Brain Project renewal proposal and how it came about".
- 1/28/03 University of Washington, MedEd 591, Biomedical and Health Informatics Research Colloquium, "BISTI planning proposal to create an Interdisciplinary Center for Structural Informatics".
- 5/3/03 Pacific Northwest Chapter, BioCommunications Association, Inc. Spring Meeting, University of Washington. "The Digital Anatomist Information System". Keynote speaker.

- 10/23/03 University of Washington, Science in Medicine Lecture. "Structural informatics and its applications in medicine and biology".
- 5/23/05 University of Washington, Frontiers in Biomedical Research Symposium, Breakout session leader, "Beyond the spreadsheet: Informatics tools for management of local lab data, and integration of those data in large scale biomedical information networks".
- 4/4/06 University of Washington, MEBI 591, Biomedical and Health Informatics Research Colloquium, "The Integrated Brain".
- 12/5/06 University of Washington, Biomedical Informatics Research Seminar (MEBI 590), "Managing, Integrating and Visualizing Biomedical Research Data".
- 1/8/07 University of Washington, Neurobiology and Behavior Research Seminar, "Neuroinformatics for integrating and visualizing brain mapping data, with application to language processing"

JAMES F. BRINKLEY

Refereed Publications

*invited

Refereed Journal Papers

1. Brinkley, J. F., Moritz, W. E. and Baker, D. W. 1978 Ultrasonic three-dimensional imaging and volume from a series of arbitrary sector scans. *Ultrasound Med. Biol.* 4: 317-327.
2. McCallum, W. D. and Brinkley, J. F. 1979 Estimation of fetal weight from ultrasonic measurements. *Amer. J. Obstet. Gynecol.* 133(2): 195-200.
3. Brinkley, J. F., Muramatsu, S. K., McCallum, W. D. and Popp, R. L. 1982 *In vitro* evaluation of an ultrasonic three-dimensional imaging and volume system. *Ultrasonic Imaging* 4: 126-139.
4. Brinkley, J. F., McCallum, W. D., Muramatsu, S. K. and Liu, D. Y. 1982 Fetal weight estimation from ultrasonic three-dimensional head and trunk reconstructions: evaluation *in vitro*. *Amer. J. Obstet. Gynecol.* 144(6): 715-721.
5. Brinkley, J. F., McCallum, W. D., Muramatsu, S. K. and Liu, D. Y. 1984 Fetal weight estimation from lengths and volumes found by ultrasonic three-dimensional measurements. *J. Ultrasound Med.* 3: 163-168.
6. Brinkley, J. F. 1985 Knowledge-driven ultrasonic three-dimensional organ modelling. *IEEE Trans. Pattern Analysis and Machine Intelligence: PAMI-7*(4): 431-441.
7. Duncan, B., Buchanan, B., Hayes-Roth, B., Lichtarge, O., Altman, R., Brinkley, J., Hewett, M., Cornelius, C. and Jardetzky, O. 1987 PROTEAN: A new method for deriving solution structures of proteins. *Bull. Mag. Res.* 8(3/4): 111-119.
8. Brinkley, J. F., Altman, R. B., Duncan, B. S., Buchanan, B. G. and Jardetzky, O. 1988 The heuristic refinement method for the derivation of protein solution structures: Validation on cytochrome-b562. *J. Chem. Information and Computer Science* 28(4): 194-210.
9. *Brinkley, J.F. 1991 Structural informatics and its applications in medicine and biology. *Academic Medicine* 66(10):589-591.
10. Sundsten, J.W., Brinkley, J.F., Conley, D.M., Eno, K., Kastella, K.G. and Rosse, C. 1992 Three-dimensional computer graphics reconstructions of anatomy on videodisc. *J. Audiovisual Media in Medicine* 15:65-67.
11. Brinkley, J.F. 1993 A flexible, generic model for anatomic shape: application to interactive two-dimensional medical image segmentation and matching. *Computers and Biomedical Research* 26:121-142.
12. Brinkley, J.F., Eno, K. and Sundsten, J.W. 1993 Knowledge-based client-server approach to structural information retrieval: the Digital Anatomist Browser. *Computer Methods and Programs in Biomedicine* 40:131-145.

13. Dailey, D.J., and Brinkley, J.F. 1996 A metric for quantifying response time in a browser application. *IEEE Trans. Systems, Man and Cybernetics, Part A (Systems and Humans)* 26(2):271-275.
14. Brinkley, J.F. and Prothero, J.S. 1997 Slisp: A flexible software toolkit for hybrid, embedded and distributed applications. *IEEE Software -- Practice and Experience* 27(1):33-48.
15. Jakobovits, R.M., Lewis, L.M., Ahrens, J.P., Shapiro, L.G., Tanimoto, S.L. and Brinkley, J.F. 1996 A visual database system for scientific research. *J. Visual Languages and Computing* 7:361-365.
16. *Brinkley, J.F. and Rosse, C. 1997 The Digital Anatomist distributed framework and its application to knowledge based medical imaging. *J. American Medical Informatics Association* 4(3):165-183. Selected for inclusion in the 1998 Yearbook of Medical Informatics.
17. Brinkley, J.F., Bradley, S.W., Sundsten, J.W. and Rosse, C. 1997 The Digital Anatomist information system and its use in the generation and delivery of Web-based anatomy atlases. *Computers and Biomedical Research* 30: 472-503.
18. *Rosse, C., Mejino, J.L., Modayur, B.R., Jakobovits, R.M., Hinshaw, K.P. and Brinkley, J.F. 1998 Motivation and organizational principles for anatomical knowledge representation: the Digital Anatomist symbolic knowledge base. *J. American Medical Informatics Association* 5(1):17-40.
19. Modayur, B.R., Prothero, J.S., Ojemann, G.A., Maravilla, K. and Brinkley, J. 1997 Visualization-based mapping of language function in the brain. *Neuroimage.* 6:245-258.
20. *Brinkley, J.F., Wong, B.A., Hinshaw, K.P. and Rosse, C. 1999 Design of an anatomy information system. *IEEE Computer Graphics and Applications.* 19(3):38-48.
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