

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.  
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Ogunyemi, Omolola Ijeoma	POSITION TITLE Assistant Professor of Radiology		
eRA COMMONS USER NAME OMOLOLAOGUNYEMI			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Barnard College, Columbia U., New York, NY	B.A.	1990-93	Computer Science
University of Pennsylvania, Philadelphia, PA	M.S.E.	1993-94	Computer and Information Science
University of Pennsylvania, Philadelphia, PA	Ph.D.	1994-99	Computer and Information Science

**A. Positions and Honors****Professional Experience:**

- 1994-1999 Research Assistant, Computer and Information Science Department. University of Pennsylvania, Philadelphia, PA
- 1999-present Research Associate, Decision Systems Group, Brigham and Women's Hospital, Boston, MA.
- 1999-2003 Instructor, Harvard Medical School, Boston, MA.
- 2003-present Assistant Professor, Harvard Medical School, Boston, MA.
- 2003-present Member of the Affiliated Faculty, Harvard-MIT Division of Health Sciences and Technology.

**Awards and Other Professional Activities:**

- 1991 Internship award: "Outstanding Achievement & Exceptional Performance," New York City Transit Authority
- 1992 Technical Associate, AT&T Bell Labs, Murray Hill, New Jersey
- 1994-95 Teaching Assistant, University of Pennsylvania, CSE110 "Introduction to Programming"
- 1995 Invited Presentation, "Medical Applications in Virtual Reality" with Jonathan Kaye, Ph.D. Annual Scientific Session, Society of American Gastrointestinal Endoscopic Surgeons
- 1997 Nominated for a Best Paper award, fall conference of the American Medical Informatics Association (AMIA)
- 1998 Second place winner, Ph.D. division, AT&T Research student poster competition
- 1999-present Member, Association for Computing Machinery
- 2000-present Member, American Medical Informatics Association
- 2000 Lecturer, Harvard/MIT course HST951 "Medical Decision Support"
- 2001-2003 Lecturer and course director, Harvard/MIT HST952 "Computing for Biomedical Scientists"
- 2002 Lecturer, "Intensive Introduction to Medical Informatics and Telemedicine", Nelson R. Mandela School of Medicine, University of Natal, Durban, South Africa
- 2003 Lecturer, "Electronic Medical Records and Decision Support", Nelson R. Mandela School of Medicine, University of Natal, Durban, South Africa
- 2003-2007 NIH Study Section (Biomedical Library & Informatics Review Committee), National Library of Medicine
- 2005 Nominated for a Distinguished Paper award, AMIA fall conference
- 2005-present Associate Editor, Computers in Biology and Medicine

**B. Selected peer-reviewed publications (in chronological order)**

- Ogunyemi O, Kaye J, Webber B, Clarke JR. Generating penetration path hypotheses for decision support in multiple trauma. In: Gardner R., editor. In Proceedings of the Nineteenth Annual Symposium on Computer Applications in Medical Care; New Orleans, LA; 1995; pp. 42-46.

2. Badler N, Webber B., Clarke JR, Chi D, Hollick M, Foster N, Kokkevis E, Metaxas D, Ogunyemi O, Kaye J, Bindiganavale R. Medisim: Simulated medical corpsmen and casualties for medical forces planning and training. The National Forum: Military Telemedicine On-Line Today. Research, Practice and Opportunities. IEEE Computer Society Press, 1995.
3. Ogunyemi O, Webber B, and Clarke JR. Probabilistic predictions of penetrating injury to anatomic structures. In: Masys D., editor. In Proceedings American Medical Informatics Association Annual Fall Symposium; Nashville, TN; 1997; pp. 714-718.
4. Chi D, Kokkevis E, Ogunyemi O, Bindiganavale R, Hollick M, Clarke JR, Webber B, Badler N. Simulated casualties and medics for emergency training. In: Morgan K, Hoffman H, Stredney D, Weghorst S, editors. MMVR97. Proceedings of the Fifth Annual Medicine Meets Virtual Reality Conference; Studies in Health Technology and Information 1997; 39:486-494.
5. Ogunyemi O, Webber B, and Clarke JR. Probabilistically predicting penetrating injury for decision support. In Proceedings Eleventh Annual IEEE Symposium on Computer-Based Medical Systems; Lubbock, TX; 1998; pp. 44-49.
6. Ogunyemi O, Webber B, and Clarke JR. Using Bayesian Networks for Diagnostic Reasoning in Penetrating Trauma Assessment. In Proceedings Thirteenth Annual IEEE Symposium on Computer-Based Medical Systems; Houston, TX; 2000; pp. 115-120.
7. Ogunyemi O, Clarke JR, Webber B, Badler N. Assessing Penetrating Trauma with Geometric and Probabilistic Reasoning. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; Los Angeles, CA; 2000; pp. 620-624.
8. Peleg M, Boxwala AA, Ogunyemi O, Zeng Q, Tu S, Lacson R, Bernstam E, Ash N, Mork P, Ohno-Machado L, Shortliffe EH, Greenes RA. GLIF3: The Evolution of a Guideline Representation Format. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; Los Angeles, CA; 2000; pp. 645-649.
9. Ash N, Ogunyemi O, Zeng Q, Ohno-Machado L. Finding Appropriate Clinical Trials: Encoding Eligibility Criteria and their Evaluation with Incomplete Data. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2001; pp. 27-31.
10. Boxwala AA, Tu S, Peleg M, Zeng Q, Ogunyemi O, Greenes RA, Shortliffe EH, Patel VL. Toward a Representation Format for Sharable Clinical Guidelines. Journal of Biomedical Informatics, 34(3): 157-169, 2001.
11. Peleg M, Ogunyemi O, Tu S, Boxwala AA, Zeng Q, Greenes RA, Shortliffe EH. Using Features of Arden Syntax with Object-Oriented Medical Data Models for Guideline Modeling. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2001; pp. 523-527.
12. Ogunyemi O, Clarke JR, Ash N, Webber B. Combining Geometric and Probabilistic Reasoning for Computer-Based Penetrating Trauma Assessment. Journal of the American Medical Informatics Association; 2002 May-Jun;9(3):273-82.
13. Peleg M, Boxwala AA, Tu S, Zeng Q, Ogunyemi O, Wang D, Patel VL, Greenes RA, Shortliffe EH. The InterMed approach to sharable computer-interpretable guidelines: a review. Journal of the American Medical Informatics Association; 2004 Jan-Feb;11(1):1-10.
14. Boxwala AA, Peleg M, Tu S, Ogunyemi O, Zeng QT, Wang D, Patel VL, Greenes RA, Shortliffe EH. GLIF3: a representation format for sharable computer-interpretable clinical practice guidelines. Journal of Biomedical Informatics, 37(2004): 147-161.
15. Sordo M, Boxwala AA, Ogunyemi O, Greenes RA. Description and Status Update on GELLO: a Proposed Standardized Object-oriented Expression Language for Clinical Decision Support. Medinfo. 2004: 164-8.
16. Wang D, Peleg M, Tu SW, Boxwala AA, Ogunyemi O, Zeng Q, Greenes RA, Patel VL, Shortliffe EH. Design and implementation of the GLIF3 guideline execution engine. Journal of Biomedical Informatics, 2004 Oct; 37(5): 305-18.
17. Matheny M, Ogunyemi O, Rice P, Clarke J. Evaluating the Discriminatory Power of a Computer-based System for Assessing Penetrating Trauma on Retrospective Multi-Center Data. Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2005; pp. 500-504.
18. Ogunyemi O. Methods for reasoning from geometry about anatomic structures injured by penetrating trauma. Journal of Biomedical Informatics, 2005 (In Press).

Abstracts:

19. Clarke JR, Ogunyemi OI, Kaye J, Badler N, Webber BL. Virtual Imaging of Anatomic Injuries from Bullet Wounds. Presented at the American Association for the Surgery of Trauma meeting in San Antonio TX, October 12, 2000.
20. Denekamp Y, Ogunyemi O, Boxwala A, Greenes, R. Using a new Object Oriented Expression Language (GELLO) to Encode Arden Syntax's Medical Logic Modules. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2002; p. 1006.
21. Nyun T, Ogunyemi O, Zeng Q. Health Information Retrieval Tool (HIRT). In Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2002; p. 1116.
22. Sordo M, Ogunyemi O, Boxwala AA, Greenes RA. GELLO: An Object-oriented Query and Expression Language for Clinical Decision Support. In Proceedings of the American Medical Informatics Association Annual Fall Symposium; 2003; p. 1012.
23. Ogunyemi O, Chlebowski R, Matloff E, Schnabel F, Orr R, Col N. Creating Bayesian Network Models for Breast Cancer Risk Prediction. In Cancer Risk Prediction Models: A Workshop on Development, Evaluation, and Application, Washington, DC, May 20-21, 2004.

### **C. Research Support:**

#### "Breast Cancer Risk Assessment with Bayesian Networks"

Principal Investigator: Omolola I. Ogunyemi

Agency: National Cancer Institutes (NCI)

Type: R03 (CA99099), Research Grant, October 2002 – October 2004

#### "Assessing Penetrating Trauma Under Uncertainty"

Principal Investigator: Omolola I. Ogunyemi

Agency: NLM

Type: R01 (LM07167-01), Research Grant, March 2002 – March 2005

#### "SMART: Scalable Medical Alert and Response Technology"

Principal Investigator: Lucila Ohno-Machado

Agency: NLM

Type: Research Contract, September 2003 to September 2006

#### "FACTS: A Computer-Based Decision Support System for Breast Cancer"

Principal Investigator: Lucila Ohno-Machado

Agency: US Army

Type: Research Grant (DAMD17-98-1-8039), April 1998 to April 2000  
information.

#### "A Shared Internet Server for Delivering Guidelines"

Subcontract Principal Investigator: Robert A. Greenes

Agency: NLM

Type: R01 (LM0659401), Research Grant, July 1999 to July 2002