Walter Sujansky, MD, PhD

735 Industrial Ave., Suite 216 San Carlos, CA 94070

(650) 802-8731 wsujansky@sujansky.com

2003 - Present **Sujansky & Associates, LLC** **San Carlos, CA**

President and Senior Consultant. Leading a healthcare I.T. consulting practice that specializes in the collection, representation, display, and exchange of clinical data in EHRs, PHRs, disease registries, and clinical data warehouses. Services include requirements analysis, technology and vendor evaluation, data-architecture design, software development, and product/project management. See www.sujansky.com for information about recent projects. References available upon request.

2000 – 2003 **ePocrates, Inc.** **San Carlos, CA**

Director, Product Development. Directed a team of product managers in the conceptualization, requirements analysis, and detailed specification of products for managing patients' drug-prescribing information on handheld devices. During tenure, the team successfully delivered a new formulary-publishing application, an updated version of the ePocrates drug-reference guide, a redesigned PDA-based messaging system, and a pilot implementation of an electronic prescribing tool. Responsibilities included product design (including UI design, data modeling, and terminology coding), competitive research, personnel management, and support for sales and business development activities.

1999 – 2000 **Apelon, Inc.** **Alameda, CA**

Director, Commercial Products. Managed all facets of product development for the company's non-government (commercial) market. Apelon's products include terminology-management tools for EHRs based on the Unified Medical Language System, as well as terminology-development tools based on description logic. Responsibilities included requirements analysis, product design, user-interface design, software engineering, management of engineering staff, quality assurance, user documentation, and sales support. Also consulted to major customers (including the AMA and Kaiser Permanente). Engagements included the design of an enhanced model for the CPT-4 coding system.

1997 – 1999 **Oceania, Inc.** **Redwood City, CA**

Director, Clinical Data Engineering. Led a 6-person team responsible for the design and implementation of clinical data models used by a commercial EHR system. Data models included XML representations of medical records to support reporting, decision support, and document interchange. XML-modeling activity included specification of document type definitions for clinical notes, as well as encoding of clinical data using the SNOMED-RT and Multum terminologies.

1996 to 1997 **WiSE Medical Systems** **Los Gatos, CA**

Clinical Data Engineer. Designed clinical coding system for an ambulatory EHR system.

1991 to 1994 **Institute for Medical Informatics (Ameritech Knowledge Data Systems)** **Palo Alto, CA**

Consultant. Designed terminology server and terminology model for an EHR rules engine.

Education **Stanford University** **Stanford, CA**

Earned M.D. and Ph.D. in Medical Information Sciences Program, a multidisciplinary graduate program combining research in computer science, decision theory, and biomedicine. Doctoral thesis defined a model for uniform access to heterogeneous clinical databases via the application of semantic data models and automated query-translation techniques. Graduated 1996.

Harvard College **Cambridge, MA**

Graduated *cum laude*. Earned B.A. in economics while minoring in pre-medical sciences. *Phi Beta Kappa*, Junior year. Graduated 1986.

Skills

- Expertise in medical informatics, especially the representation, exchange, and analysis of clinical data in EHRs. Knowledgeable in the technical, policy, and business aspects of this area.
- Very experienced in developing and documenting health I.T. requirements and specifications
- Facile with SQL (Oracle, Sybase, and MS-Access), Java, Visual Basic .NET, C, and Perl. Significant experience with XML, XML schema/DTD, and XSLT transformation technologies, as well as web services and WSDL. Deep, hands-on knowledge of HL7 messaging standards.
- Project and product management skills, and familiarity with a variety of commercial products.

Recent Speaking Engagements

Health Information Exchange: Challenges and Methods. 3-hour education session, American Medical Informatics Association 2015 Annual Symposium. San Francisco, CA. November, 2015.

A Lightweight, Decentralized Trust Framework for DIRECT Messaging. Educational session presented at Health Information and Management Systems Society (HIMSS) conference, 2014

The Informatics of Health Information Exchange. 3-hour education session, American Medical Informatics Association 2012 Annual Symposium. Washington, D.C. November 3, 2012.

Standards for Storing and Exchanging Clinical Data in Electronic Health Record Systems. 3-hour education session, American Medical Informatics Association 2010 Annual Symposium. Washington, D.C. November 13, 2010. Also presented this tutorial at the 2007, 2008 and 2009 Annual Symposia.

Other Activities and Honors

Invited expert at Workshop on Exploring Legal Challenges to Fulfilling the Potential of mHealth in a Safe and Responsible Environment. American Association for the Advancement of Science (AAAS). October 6-7, 2014.

Member of Advisory Panel to HHS Health Information Technology Policy Committee on the topic of disease registries as data intermediaries for clinical quality measures. 2013 – 2014.

Member of Expert Panel for Lab Data Integration for Diabetes Care Improvement. Brookings Institution, November 2009.

Member of Technical Expert Panel for the development of "Privacy and Security Solutions for Interoperable Health Information Exchange -- Perspectives on Patient Matching: Approaches, Findings, and Challenges." 2009. This white paper was prepared by RTI International for the Office of the National Coordinator, Department of Health and Human Services. Available at www.amia.org/files/shared/PatientMatchingWhite_Paper_Final_2_.pdf.

Judge, Electronic Medical Record Product Awards. Towards Electronic Patient Records (TEPR) Conference. 2003-2005.

Publications

W. Sujansky, T. Wilson. DIRECT Secure Messaging as a Common Transport Layer for Reporting Structured and Unstructured Lab Results to Outpatient Providers. *The Journal of Biomedical Informatics*. Volume 54, April 2015, Pages 191–201.

W. Sujansky, D. Kunz. A Standards-Based Model for the Sharing of Patient-Generated Health Information with Electronic Health Records. *Personal and Ubiquitous Computing.* Volume 19, Issue 1 (2015), Page 9-25.

W. Sujansky, S. Faus, et. al. A Method to Implement Fine-Grained Access Control for Personal Health Records using Standard Relational Database Queries. *The Journal of Biomedical Informatics*. 2010 Oct;43(5 Suppl): S46-50. Epub 2010 Aug 7.

W. Sujansky, M. Overhage, et. al. The Development of a Highly Constrained HL7 Implementation Guide to Facilitate Electronic Laboratory Reporting to Ambulatory EHRs. *The Journal of the American Medical Informatics Association*. 2009; 16: 285-290.

W. Sujansky & S. Chang. The California Clinical Data Project: A Case Study in the Adoption of Clinical Data Standards for Quality Improvement. *The Journal of Health Information Management*. 2006. Vol. 20, Num. 3.

W. Sujansky. Clinical Terminologies for Data Analysis and Structured Data Entry. Book chapter in J. Silva, Ed. Cancer Informatics: Essential Technologies. 2002. Springer-Verlag, New York.

W. Sujansky. Heterogeneous Database Integration in Biomedicine. *The Journal of Biomedical Informatics*. 2001 Aug; 34(4):285-98.

W. Sujansky. A Document-Centric Electronic Medical Record System with Database-Centric Reporting Capabilities. *Toward An Electronic Patient Record, Proceedings Manual*. San Antonio, TX. 1999.

W. Sujansky. The Benefits and Challenges of an Electronic Medical Record: Much More than a "Word-Processed" Patient Chart. *Western Journal of Medicine*, 169(3): 176-83, Sept. 1998.

Jenders RA, Sujansky W, Broverman CA, Chadwick M. Towards improved knowledge sharing: assessment of the HL7 Reference Information Model to support medical logic module queries. *Proceedings of the 1997 AMIA Annual Fall Symposium*, Washington, D.C., 308-12.. Hanley & Belfus, 1997.

W. Sujansky. *A Formal Model for Bridging Heterogeneous Relational Databases in Clinical Medicine*. (DOCTORAL THESIS). April 1996.

W. Sujansky & R. B. Altman. An Evaluation of the TransFER Model for Sharing Clinical Decision-Support Applications. In James J. Cimino, Ed., *Proceedings of the 1996 AMIA Annual Fall Symposium*, Washington, D.C., 468-472. Hanley & Belfus, 1996.

W. Sujansky & R. Altman. Towards a Standard Query Model for Sharing Decision-Support Applications. *Proceedings of the Eighteenth Annual Symposium on Computer Applications in Medical Care*, Washington, DC, 325-331. 1994.

W. Sujansky & R. Altman. Bridging the Representational Heterogeneity of Clinical Databases. *AAAI Spring Symposium on Artificial Intelligence in Medicine*, Stanford, CA, 157-161. 1994.

W. Sujansky & R. Altman. Towards a Universal Interface to Clinical Databases. *Abstract Book of the American Medical Informatics Association Spring Congress*, p. 122. San Francisco, May 1994.

W. Sujansky & M. Shwe. The SQLX System: Generating Explanations for Clinical Rules Encoded in SQL. *Proceedings of the Sixteenth Annual Symposium on Applications in Medical Care*, Baltimore, MD, 239-243. 1992.

W. Sujansky, D. Zingmond, M. Toshiyuki, & T. Barsalou. PENGUIN: An Intelligent System for Modeling and Sharing Declarative Knowledge Stored in Relational Databases. In K.C. Lun et al., Ed., *MEDINFO 92*, Palexpo Geneva, Switzerland, 466-471. 1992.

W. Sujansky, T. Barsalou, & G. Wiederhold. Structural Semantics and Complex Objects for the Coupling of Relational Databases and Knowledge-Based Systems. *AAAI Workshop on Knowledge Base Management Systems*, Boston, MA. 1990.

W. Sujansky, T. Barsalou, L. Herzenberg, & G. Wiederhold. An Enhanced Relational Database Model to Support the Design of Flow Cytometry Protocols. Abstract in *Proceedings of AMIA Educational and Research Conference*, Joyce Mitchell, Ed., p. 30. June 1990.

M. Shwe, W. Sujansky, & B. Middleton. Reuse of Knowledge Represented in the Arden Syntax. *Proceedings of the Sixteenth Annual Symposium on Computer Applications in Medical Care*, Baltimore, MD, 47-51. 1992.

T. Barsalou, W. Sujansky, L. Herzenberg, & G. Wiederhold. Management of Complex Immunogenetics Information Using an Enhanced Relational Model. *Computers and Biomedical Research*, 24(Issue):476-498, 1991.

T. Barsalou, W. Sujansky, & G. Wiederhold. Expert Database Systems in Biomedicine: The PENGUIN Project. *AAAI Spring Symposium Series on AI in Medicine*, Stanford, CA, 14-17. 1990.

G. Wiederhold, W. Sujansky, T. Barsalou, N. Siambela, D. Zingmond. Supporting Access to Multiple Databases for Multiple Views. *Extended Abstract, NLM Biomatrix Conference Proceedings*, George Mason Univ., Fairfax VA, July 1990.

G. Wiederhold, T. Barsalou, W. Sujansky. Sharing Information Among Biomedical Applications. Presented at the SEMI Conference on Medical Informatics, Amsterdam, October 1990.

K. Law, G. Wiederhold, T. Barsalou, N. Siambela, W. Sujansky, D. Zingmond. Managing Design Objects in a Sharable Relational Framework. CIFE, Stanford University, March 1990.

H. Claman, K. Choi, W. Sujansky, A. Vatter. Mast Cell Disappearance in Chronic Murine Graft-vs-Host Disease - Ultrastructural Demonstration of "Phantom Mast Cells." *The Journal of Immunology*, 137:2009-2013, 1986