

Michael J. Potel Curriculum Vitae

Michael J. Potel, Ph.D.

Expertise

- System Software
- Computer Graphics
- Object-Oriented Systems
- 3D Imaging
- User Interfaces
- Personal & Mobile Computing
- Internet Software
- Applications Development



Professional Summary

Dr. Potel has over 35 years experience in the computer and software industries with Apple, Taligent, IBM, and the University of Chicago. Dr. Potel serves as an independent consultant and expert witness in system software, application software, internet technologies, computer graphics, user interfaces, personal and mobile computing, 3D imaging, image processing, object-oriented systems, and software IP.

Dr. Potel is President of Wildcrest Associates, a Silicon Valley technology consultancy and software products company, where he has developed Java and C++ class libraries and tools as well as commercial applications for PC, internet, and mobile platforms. Previously, as Director of Software Engineering for Apple, he led the teams responsible for multiple releases of the Macintosh operating system, including well-known technologies such as QuickTime, TrueType, AppleScript, and Color QuickDraw, development tools such as MPW, HyperCard, and MacApp, and object technologies leading to the Apple/IBM/HP joint venture Taligent. As a University of Chicago faculty member, he published extensively on computer graphics, image processing, and visualization in scientific applications.

Dr. Potel has been an expert witness in over two dozen patent cases involving 3D graphics and video processors, graphics displays, printer halftoning, 2D and 3D CAD systems, digital cameras, smartphones, e-commerce, web servers, web browsers, web authoring systems, Java databases, wireless messaging, email protocols, game systems graphics, object-oriented software development tools, and software applications. Dr. Potel has testified at trial and by deposition in Federal patent cases, arbitration, and Markman hearings. He has published over 80 articles and journal publications. He received a B.S. in Mathematics from the University of Michigan in 1970, and M.S. and Ph.D. degrees in Information Sciences from the University of Chicago in 1971 and 1977, respectively.

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Employment History

Date:	1997-now	Wildcrest Associates
		Los Altos Hills, CA
	1997-	<i>President and Co-Founder</i>
		Founded successful Silicon Valley software technology consulting and software products company. Consulting services provided in technology evaluations, software strategy & intellectual property. Design and implementation of end-user applications and developer component technologies for Web, Internet, PC, and mobile platforms.

Date:	1992-1997	Taligent, Inc. (Joint Venture of Apple, IBM, and Hewlett Packard, later wholly-owned subsidiary of IBM)
		Cupertino, CA
	1996-1997	<i>Vice President and Chief Technology Officer</i>
		Responsible for technology strategy, architecture, product planning and marketing, and IT. Managed IBM parent company relationship, technical and product direction, and business opportunities including technology licensing to Sun, Netscape, and Oracle. Shipped products included Java and C++ class libraries, tools, component groupware.
	1992-1995	<i>Vice President, Technology Development</i>
		Responsible for bringing the CommonPoint Application System to market. Responsible for technology strategy, investigations, partnerships, standards, and intellectual property development. Primary technical spokesperson with press, analysts, and customers. Co-author <i>Inside Taligent Technology</i> (Addison-Wesley, 1995).
	1992	<i>Vice President, Engineering</i>
		Responsible for the company's founding product development program and engineering organization of 165 engineers.

Date:	1985-1992	Apple Computer, Inc.
		Cupertino, CA
	1988-1992	<i>Sr. Director, Software Engineering</i>
		Directed 150 software engineers (1991-92) responsible for Apple's system software project known as "Pink". Played central role in year-long Apple/IBM negotiations leading to formation of Taligent, Inc.

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		<p>Apple Computer, Inc. continued</p> <p>Directed 245 software engineers (1989-91) responsible for Apple's Pink project plus all Macintosh development system products. Initiated and shipped MPW 3.0, HyperCard 2.0, & MacApp 3.0.</p> <p>Directed 320 software engineers (1988-89) responsible for all Apple system software and development tools. Initiated Macintosh System 7.0 and Pink OS efforts, and key technologies such as QuickTime, TrueType, and AppleScript. Also responsible for Mac user interface, multimedia products, A/UX (Unix), Apple II, and Mac firmware.</p>
	1987-1988	<i>Engineering Manager, Computer Technologies Advanced Technology Group.</i>
		Managed 70 HW & SW engineers in a multiple project environment. Product technology investigations in graphics, video, sound, speech, RISC, OS, object systems, tools, applications.
	1985-1987	<i>Program Manager, Graphics & Sound Advanced Development Group.</i>
		Managed 13 HW & SW engineers prototyping new product technologies. Shipped products included Mac II Video Card, Color QuickDraw, Apple Sound Chip & Sound Manager, Two Page Display Graphics Card, Apple II Video Overlay Card, Apple MIDI interface.
	1985	<i>Staff Engineer, Education Research Group</i>
		Responsible for color halftoning and other investigations leading to the design of Color QuickDraw for the Macintosh and two US patents. Related work in image processing, ray tracing, Unix system software.

Date:	1977-1985	University of Chicago
		Chicago, IL
	1977-1985	<i>Research Associate (Assistant and Associate Professor)</i> Department of Biophysics and Theoretical Biology
		<ul style="list-style-type: none"> ▪ Founded and directed the University of Chicago Computer Graphics & Image Processing Laboratory. Departmental and campus-wide research facility with 2 Ph.D. Research Associates, 4 grad students, 4 staff. Principal advisor on 2 Ph.D. dissertations. ▪ Designed and built multiple custom research computing systems for scientific image processing, visualization, 3D motion analysis.

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		University of Chicago continued <ul style="list-style-type: none"> ▪ Research in Fourier image processing & reconstructions, interactive 2D & 3D graphics, color rendering, animation, time-based image & scene analysis, scientific computation. ▪ Principal Investigator or co-Principal Investigator on multiple NSF, NIH, Heart Association, & industry grants ▪ Teaching: computer programming, computer graphics & image processing, 7 University committee appointments
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Litigation Support Experience

20 expert witness, 7 consulting expert, 2 fact witness

Date:	2017-now	Morrison & Foerster (for defendant Nikon)
Case:		Zeiss v. Nikon (expert witness)
Matter:		Patent infringement, 3 patents, camera image processing software.
Project:		Invalidity analysis.
Status:		Ongoing

Date:	2013-now	Bracewell & Giuliani (for plaintiff CA)
Case:		CA v. New Relic (expert witness)
Matter:		Patent infringement, 3 patents, software performance monitoring tools.
Project:		Validity analysis, expert report, expert deposition.
Status:		Ongoing

Date:	2014-2015	Holland & Knight (for plaintiff/defendant CA)
Case:		CA v. AppDynamics & AppDynamics v. CA (expert witness)
Matter:		Patent infringement, 3 patents, breach of contract, misappropriation of trade secrets, software performance monitoring tools.
Project:		Validity analysis, source code analysis, expert report, expert deposition, expert declaration.
Status:		Cases settled in favor of client

Date:	2012-2014	Ropes & Gray (for defendant Nikon)
Case:		Intellectual Ventures v. Nikon (expert witness)
Matter:		Patent infringement, 2 patents, digital camera imaging and software.
Project:		Invalidity analysis, claim construction.
Status:		Patent assertions withdrawn

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Date:	2006-2011	Robins, Kaplan, Miller and Ciresi (for defendant ATI/AMD)
Case:		SGI v. ATI/AMD (expert witness)
Matter:		Patent infringement, 3 patents, 3D graphics processors.
Project:		Prior art, invalidity analysis, claim construction, expert & supplemental reports, expert declarations, expert deposition, expert testimony at trial.
Status:		First trial completed, settled on eve of second trial following appeal

Date:	2010	DLA Piper Rudnik Gray Cary (for defendant Digital Insight / Intuit)
Case:		MShift v. Digital Insight / Intuit (expert witness)
Matter:		Patent infringement, 1 patent, mobile on-line banking software.
Project:		Non-infringement analysis, source code analysis, claim construction, expert declarations.
Status:		Summary judgment ruling for defendant following Markman

Date:	2009	Sheppard Mullin (for plaintiff Surfware)
Case:		Surfware v. Celeritive Technologies (expert witness)
Matter:		Patent and trade secret litigation, 1 patent, CAD/CAM software.
Project:		Infringement analysis, source code analysis, claim construction, expert declarations.
Status:		Settlement reached

Date:	2008-2009	Crowell & Moring (for defendant Kodak)
Case:		Screenstone Systems v. Kodak et al (expert witness)
Matter:		Patent infringement, 2 patents, printer halftoning technology.
Project:		Non-infringement analysis, product investigation, claim construction.
Status:		Settlement reached

Date:	2004-2009	Klarquist Sparkman (for defendant Microsoft)
Case:		Research Corporation Technologies v. Microsoft (expert witness)
Matter:		Patent infringement, 6 patents, printer halftoning technology.
Project:		Source code analysis, image analysis, invalidity analysis, expert declarations, expert & supplemental reports, expert deposition.
Status:		Settlement reached

Date:	2006-2007	Reed Smith (for defendant SportsMEDIA)
Case:		Sportvision v. SportsMEDIA (expert witness)
Matter:		Patent infringement, 3 patents, first-down line for televised football.
Project:		Prior art research, invalidity analysis, non-infringement analysis, expert & rebuttal reports.
Status:		Settled via patent license

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Date:	2004-2006	DLA Piper Rudnik Gray Cary (for plaintiff Hewlett Packard)
Case:		Hewlett Packard v. Gateway (expert witness)
Matter:		Patent infringement, 3 patents, graphics projection, software updating.
Project:		Prior art research, invalidity analysis, product testing, infringement analysis, claim construction.
Status:		Case settled in favor of plaintiff

Date:	2004-2006	Buchalter, Nemer, Fields & Younger (for plaintiff Brandt/3dfx)
Case:		Brandt/3dfx v. nVidia (expert witness)
Matter:		Patent infringement/bankruptcy, 3 patents, 3D graphics processors.
Project:		Infringement analysis, source code analysis, expert report, expert deposition.
Status:		Bench trial completed, ruling on appeal

Date:	2005	Klarquist Sparkman (for defendant Amazon)
Case:		BTG International v. Amazon (consulting expert)
Matter:		Patent infringement, 2 patents, web server technology.
Project:		Prior art research, claim construction.
Status:		Project completed

Date:	2004-2005	Fish & Richardson (for defendant Microsoft)
Case:		Teknowledge v. Microsoft (expert witness)
Matter:		Patent infringement, 3 patents, web servers, e-commerce, & browsers.
Project:		Infringement analysis, claim construction, product testing, source code analysis, expert declarations, Markman tutorial (presented).
Status:		Case settled following Markman hearing

Date:	2004-2005	Irell & Manella (for plaintiff Hewlett Packard)
Case:		Hewlett Packard v. Intergraph (expert witness)
Matter:		Patent infringement, 2 patents, 2D & 3D graphics in CAD systems.
Project:		Infringement analysis, product testing, source code analysis, claim construction, expert declaration.
Status:		Case settled via patent cross-license

Date:	2003-2004	Boies, Schiller & Flexner (for plaintiff/defendant New River)
Case:		New River Holding Ltd. v. Precision Response Corp. (expert witness)
Matter:		Acquisition dispute, arbitration. Java, databases, web authoring systems.
Project:		Software development review, product test, source code analysis, expert & rebuttal reports, expert & rebuttal testimonies at arbitration hearing.
Status:		Case concluded with verdict

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Date:	2003	Jones Day (for plaintiff Research in Motion)
Case:		Research In Motion (BlackBerry) v. Good Technology (expert witness)
Matter:		Patent infringement, 1 patent, wireless messaging, email protocols.
Project:		Prior art review, infringement analysis, source code analysis.
Status:		Case settled, defendant agreed to lump sum payment + royalties.

Date:	2002-2003	Wilson, Sonsini, Goodrich & Rosati (for defendant Sun Microsystems)
Case:		Kodak v. Sun Microsystems (consulting expert)
Matter:		Patent infringement, 3 patents, object-oriented compound documents.
Project:		Prior art research, infringement analysis, product testing.
Status:		Project completed

Date:	2001-2002	Wilson, Sonsini, Goodrich & Rosati (for defendant Borland)
Case:		WebGain v. Borland (expert witness)
Matter:		Patent infringement, 7 patents, object-oriented SW development tools.
Project:		Infringement analysis, product testing, source code analysis, tutorial & demo development, expert report, rebuttal report (prepared).
Status:		Settled in favor of defendant during summary judgment phase.

Date:	2001	Irell & Manella (for plaintiff Intel)
Case:		Intel v. potential litigant (consulting expert)
Matter:		Patent infringement, graphics/video processors.
Project:		Infringement analysis, patent portfolio analysis, and product testing.
Status:		Project completed

Date:	2001	Bergeson & Eliopoulos (for plaintiff Trident)
Case:		Trident v. S3 (consulting expert)
Matter:		Trade secret litigation, 3D graphics processors.
Project:		Analysis of product development plans for trade secret violation.
Status:		Project completed

Date:	2001	Howrey, Simon, Arnold & White (for defendant Insignia Solutions)
Case:		Sony Corporation v. Insignia Solutions (consulting expert)
Matter:		Patent infringement, 2 patents, game system graphics technologies.
Project:		Prior art research, invalidity analysis.
Status:		Settled via patent cross-license

Date:	2000-2001	Weil, Gotshal & Manges (for plaintiff Phone.com)
Case:		Phone.com v. Geoworks (expert witness)
Matter:		Patent infringement, 1 patent, WAP/WML Internet & object technology.
Project:		Prior art research, claim construction.
Status:		Settled via patent cross-license

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Date:	1999-2001	Crosby, Heafey, Roach & May (for plaintiff 3dfx)
Cases:		3dfx v. nVidia and 3dfx v. Real3D (expert witness)
Matter:		Patent infringement, 3 patents, 3D graphics processors.
Project:		Prior art review, infringement analysis, discovery review, code analysis, product testing, two Markman tutorials (presented), expert report (draft).
Status:		Real3D took license; acquisition of 3dfx by nVidia

Date:	2000	Gray, Cary, Ware & Freidenrich (for defendant Walkabout)
Case:		Firoozye v Walkabout Software (consulting expert)
Matter:		Trade secret litigation, Internet browser software.
Project:		Source code analysis in support of trade secret litigation.
Status:		Project completed

Date:	1999-2000	Crosby, Heafey, Roach & May (for plaintiff Enhance)
Case:		Enhance v. Turn-Luckily (consulting expert)
Matter:		Patent infringement, 2 patents, Macintosh video interfaces.
Project:		Prior art review, discovery review.
Status:		Defendant took license following Markman ruling

Date:	1999	Arter & Hadden (for plaintiff Insight)
Case:		Insight v. Hewlett Packard (expert witness)
Matter:		Patent infringement, 1 patent, web site image display.
Project:		Prior art & infringement analysis, expert report (draft).
Status:		Case settled following Markman ruling

Date:	1995	Brown & Bain (for defendant Apple Computer)
Case:		Apple (Records) Corp. v Apple Computer (fact witness)
Matter:		Trademark litigation.
Project:		Resumption of earlier case litigated in UK, preliminary deposition.
Status:		Case settled during trial

Date:	1990-1991	Marsland & Starr (UK) (for defendant Apple Computer)
Case:		Apple (Records) Corp. v Apple Computer (fact witness)
Matter:		Trademark litigation.
Project:		Music products trademark case, discovery materials, interrogatory.
Status:		Case dismissed

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Testifying Experience

Testimony:

Date:	Case:	Type:
2008	SGI v. ATI/AMD (WD-Wis.)	Expert testimony
2004	Precision Response Corp. v. New River (FL arbitration)	Rebuttal testimony
2004	New River v. Precision Response Corp. (FL arbitration)	Expert testimony

Depositions:

Date:	Case:	Type:
2014	CA v. AppDynamics (ED-NY)	Deposition
2014	CA v. New Relic (ED-NY)	Deposition
2011	SGI v. ATI/AMD (WD-Wis.)	Deposition
2005	Brandt/3Dfx v. nVidia (ND-Cal.)	Deposition
2005	Research Corporation Technologies v. Microsoft (D-Ariz.)	Deposition

Expert reports:

Date:	Case:	Type:
2014	CA v. AppDynamics (ED-NY)	Rebuttal report
2014	CA v. New Relic (ED-NY)	Rebuttal report
2011	SGI v. ATI/AMD (WD-Wis.)	Supplemental report
2009	Research Corporation Technologies v. Microsoft (D-Ariz.)	Supplemental report
2007	SGI v. ATI/AMD (WD-Wis.)	Expert report
2006	Sportvision v. SportsMEDIA (ND-Cal.)	Rebuttal report
2006	Sportvision v. SportsMEDIA (ND-Cal.)	Expert report
2004	Brandt/3Dfx v. nVidia (ND-Cal.)	Expert report
2004	Research Corporation Technologies v. Microsoft (D-Ariz.)	Expert report
2004	New River v. Precision Response Corp. (FL arbitration)	Rebuttal report
2004	New River v. Precision Response Corp. (FL arbitration)	Expert report
2002	WebGain v. Borland (ND-Cal.)	Expert report

Consulting History

Date:	2001-now	Apple, Inc.
		Software technology investigations, technical reviews, support of licensing, acquisitions, competitive analysis, IP development.

Date:	2014-now	Hamilton IPV
		Intellectual property and investment diligence investigations.

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Date:	2014-now	Tinrocket, LLC
		Technical investigation for iPhone/iOS photo processing applications.
Date:	2016-now	ServiceNow, Inc.
		Technical analysis relating to patents.
Date:	2014-2016	Yahoo! Inc.
		Patent, product, and technology investigations.
Date:	2012-2014	Dropbox, Inc.
		Technology portfolio investigations in support of acquisitions.
Date:	2013	BlackBerry Ltd.
		Technology portfolio investigation for potential licensing.
Date:	2008-2013	BreathResearch, Inc.
		Advisory board member for iPhone-based health product company.
Date:	2011-2012	Altera Corporation
		Investigation of web server technology for potential licensing.
Date:	2007-2008	American Greetings Interactive
		Technology review in support of company acquisition.
Date:	2005	Think2020, Inc.
		Review of object-oriented business application framework design.
Date:	2003-2004	Managed Ventures, Inc.
		Design of bioinformatics report generation software.
Date:	2002-2004	IBM Corporation
		Technology review, investigation and analysis of object-oriented products, evaluation reports.
Date:	2001	Central Coast Patent Agency, Inc.
		Technology development and business strategy for agency clients. Declarations in support of USPTO patent prosecutions.
Date:	1998-2001	Clearwater Networks (formerly XStream Logic, Inc.)
		Advisory board member and consultant for VLSI products company developing high-speed network microprocessors.

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Date:	1998-2001	Object Technology Licensing Corp. (subsidiary of Apple and IBM)
		Support patent prosecution, licensing negotiation, portfolio analysis.
Date:	2000	Total Seminars, LLC
		Custom software development, object-oriented component design.

Date:	1999	The Pixel Company
		Review of Windows user interface technology, patent applications.

Date:	1984-1987	Bioscan, Inc.
		Developed thin-layer chromatography imaging product for IBM PC.

Date:	1982-1985	Siemens, Inc.
		Automated image re-registration in digital subtraction angiography.

Date:	1982-1985	Apple Computer, Inc.
		Graphics software consulting, beta test site, graphics library design.

Date:	1982-1985	Hoffman-LaRoche, Inc.
		Color autoradiography image acquisition & analysis system on PC.

Date:	1982	Popelka, Allard, McCowan & Jones
		Analysis of accident scene photos in product liability litigation.

Date:	1982	NBC News
		Image processing for Tylenol murder investigation. Featured on <i>NBC Nightly News</i> and <i>Today Show</i> .

Education

<u>Year</u>	<u>College/University</u>	<u>Degree</u>
1977	University of Chicago	Ph.D., Information Sciences. Thesis: Performance analysis and design of real-time computer graphics animation systems. National Science Foundation Traineeship.
1971	University of Chicago	MS, Information Sciences
1970	University of Michigan	BS, Mathematics, with Distinction, with High Honors

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Patents

Patent Number	Date Issued	Title
5,068,644	Nov 1991	Color Graphics System
5,003,299	May 1991	Method for Building a Color Look-Up Table

Professional Associations

- Member, Association for Computing Machinery (1974-present)
- Member, IEEE (1977-present)
 - Senior Member (2010)
 - Life Senior Member (2014)
- Member, Editorial Board, IEEE Computer Graphics & Applications (1989-present)
 - Department Editor, Applications (1994-present)
 - Associate Editor-in-Chief (2002-present)
- Advisory Board, BreathResearch, Inc. (2008-2013)
- Advisory Board, Clearwater Networks, Inc. (1998-2001)
- Advisory Panel, Silicon Valley Expert Witness Group (2002-2011)
- Board of Directors, Unicode, Inc. (1991-1997)
- Phi Kappa Phi, 1970; Phi Eta Sigma, 1967

Publications

Journal Publications (41)

Potel, M. and Wong, P. C. "Visualizing 20 Years of Applications". *IEEE Computer Graphics & Applications*, 34, 6, 6-11, 2014.

Potel, M. "CG&A's Departments". *IEEE Computer Graphics & Applications*, 32, 2, 6-7, 2012.

Potel, M. "A Decade of Applications". *IEEE Computer Graphics & Applications*, 24, 6, 14-19, 2004.

Potel, M. "Applications 2000" (Invited paper). *IEEE Computer Graphics & Applications*, 20, 1, 42-43, 2000.

Potel, M. "Motion sick in cyberspace." *IEEE Computer Graphics & Applications*, 18, 1, 16-21, 1998.

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Potel, M. "Computer graphics and DNA sequencing." *IEEE Computer Graphics & Applications*, 16, 6, 14-19, 1996.

Lewis, T., Power, D., Meyer, B., Grimes, J., Potel, M., Vetter, R., Laplante, P., Pree, W., Pomberger, G., Hill, M., Larus, J., Wood, D., El-Rewini, H., and Weide, B. "Where is software headed? A virtual roundtable." *IEEE Computer*, 28, 8, 20-32, 1995.

Potel, M. "Message from the editor" (Department Editor's introductory column for bimonthly Applications Department Nov 1994-present). *IEEE Computer Graphics & Applications*, 14, 6, 12, 1994.

Potel, M. and Grimes, J. "The architecture of the Taligent system." *Dr. Dobb's Journal*, 19, 16, 36-40, 1994.

Grimes, J.D. and Potel, M.J. "The Taligent Application Environment: An approach to object-oriented systems development." *American Programmer*, 7, 8, 7-13, 1994.

Nolan, A.C., Karwoski, T., Potel, M.J., Rubin, J.M., and Sayre, R.E. "Relative magnitude and asynchrony of directional components of contraction in sedated dog left ventricle." *American J. Physiology*, 267, 1, 75-84, 1994.

Grimes, J. and Potel, M. "Amazing desktop applications." (Guest Editors' Introduction). *IEEE Computer Graphics & Applications*, 13, 3, 14, plus 2 papers, 1993.

Grimes, J. and Potel, M. "Multimedia - it's actually useful!" (Guest Editors' Introduction). *IEEE Computer Graphics & Applications*, 11, 4, 24-25, plus 7 papers, 1991.

Grimes, J. and Potel, M. "What is Multimedia?" (10th anniversary invited article). *IEEE Computer Graphics & Applications*, 11, 1, 49-52, 1991.

Carragher, B., Bluemke, D.A., McDade, W., Backer, M., Potel, M.J. and Josephs, R. "Structural analysis of polymers of sickle cell hemoglobin III. Structure of HbS fibers within fascicles." *J. Molecular Biology*, 199, 383-388, 1987.

Bluemke, D.A., Carragher, B., Potel, M.J. and Josephs, R. "Structural analysis of polymers of sickle cell hemoglobin II. Sickle Hemoglobin Macrofibers." *J. Molecular Biology*, 199, 333-348, 1987.

Carragher, B., Bluemke, D.A., Gabriel, B., Potel, M.J. and Josephs, R. "Structural analysis of polymers of sickle cell hemoglobin I. Sickle Hemoglobin Fibers." *J. Molecular Biology*, 199, 315-331, 1987.

Potel, M. and Batson, J. "Macintosh II dithered and raytraced images." *MacWorld*, 4, 4, 126-127, 132-133, and cover, April 1987.

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Bluemke, D.A., Carragher, B., Geis, I., Potel, M.J. and Josephs, R. "Electron density modeling of polymers of sickle hemoglobin." *Electron Microscopy Society of America Bulletin*, 17, 1, 54-63, 1987.

Bluemke, D.A., Carragher, B., Potel, M.J. and Josephs, R. "Real-space reconstructions of nonideal helical particles." *J. Electron Microscopy Technique*, 5, 2, 141-151, February 1987.

Bluemke, D.A., Carragher, B., Potel, M.J. and Josephs, R. "The three-dimensional structure of sickle cell macrofibers." *Pathophysiological Aspects of Sickle Cell Disease*. R. Nagel, ed. Alan Liss, New York, 31-46, 1986.

Carragher, B., Bluemke, D.A., Potel, M.J. and Josephs, R. "The restoration of electron micrographs blurred by drift and rotation." *Proteins Structure, Function, and Genetics*, 1, 2, 176-187, 1986.

Potel, M.J., Wellems, T.E., Vassar, R.J., Deer, B. and Josephs, R. "Macrofiber structure and the dynamics of sickle cell hemoglobin crystallization". *J. Molecular Biology*, 177, 819-839, 1984.

Potel, M.J., MacKay, S.A., Rubin, J.M., Aisen, A.M, and Sayre, R.E. "Three-dimensional left ventricular wall motion in man: Coordinate systems for representing wall movement direction." *Investigative Radiology*, 19, 6, 499-509, 1984. Stauffer Award, Association of University Radiologists, Best Paper of 1984.

Liu, K.J., Rubin, J.M., Potel, M.J., Aisen, A.M., MacKay, S.A., Sayre, R.E. and Anagnostopoulos, C.E. "Left ventricular wall motion its dynamic transmural characteristics." *J. Surgical Research*, 36, 25-34, 1984.

Potel, M.J., Rubin, J.M., MacKay, S.A., Aisen, A.M., Al-Sadir, J. and Sayre, R.E. "Methods for evaluating cardiac wall motion in three dimensions using bifurcation points of the coronary arterial tree." *Investigative Radiology*, 18, 47-57, 1983.

Devreotes, P.N., Potel, M.J. and MacKay, S.A. "Quantitative analysis of cyclic AMP waves mediating aggregation in Dictyostelium discoideum." *Developmental Biology*, 96, 2, 405-415, April 1983.

Potel, M.J. and MacKay, S.A. "Computer processed image of cyclic AMP waves propagating through a field of cellular slime mold amoebae." *Frontiers in Color Computer Graphics 1982* (refereed microfiche and slide set), *Computer Graphics*, 16, 4, December 1982.

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MacKay, S.A., Potel, M.J. and Rubin, J.M. "Graphics methods for tracking three-dimensional heart wall motion." *Computers and Biomedical Research*, 15, 5, 455-473, October 1982.

Lum, A.M., Wassersug, R.J., Potel, M.J. and Lerner, S.A. "Schooling behavior of tadpoles a potential indicator of ototoxicity." *Pharmacology, Biochemistry and Behavior*, 17, 363-366, 1982.

Vasser, R.J., Potel, M.J. and Josephs, R. "Studies of the fiber to crystal transition of sickle cell hemoglobin." *J. Molecular Biology*, 157, 395-412, 1982.

Wassersug, R.J., Lum, A.J. and Potel, M.J. "An analysis of school structure for tadpoles (Annura Amphibia)." *Behavioral Ecology and Sociobiology*, 9, 15-22, 1981.

Potel, M.J. "Computer processed image of cAMP waves in cellular slime molds (isotope dilution fluorography by P.N. Devreotes)". *Science*, 212, 4493, cover photograph, April 24, 1981.

Potel, M.J. and Wassersug, R.J. "Computer tools for the analysis of schooling." *Environmental Biology of Fishes*, 6, 1, 15-19, 1981.

Katz, L.C., Potel, M.J. and Wassersug, R.J. "Structure and mechanisms of schooling in tadpoles of the clawed frog *Xenopus laevis*." *Animal Behaviour*, 29, 20-33, 1981.

Potel, M.J., Sayre, R.E. and MacKay, S.A. "Graphics input tools for interactive motion analysis." *Computer Graphics and Image Processing*, 14, 1-23, September 1980.

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