

CURRICULUM VITAE (Revised May 19, 2018)

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Name: **Jeffrey Alan Klein, MD MPH. Clinical Professor, Dermatology, UC Irvine**

Birth date & Place: August 13, 1944. Los Angeles, California. Citizenship: USA

Languages: English, Spanish, French

Wife: Kathleen Hutton-Klein, MD (dermatologist). Children: Élan, Luke, Dora, Paytra, Bram

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ACADEMIC APPOINTMENTS: Clinical Professor, Dermatology, University of California, Irvine

EDUCATION

School	Degree	Specialty	Dates
University of California, Riverside	BA	Mathematics	1962-67
Université de Paris		Mathematics	1967-68
University of California, San Diego	MA	Mathematics	1968-71
University of California, Berkeley (JMP)	MS	Medical Sciences	1972-74
University of California, San Francisco	MD	Medicine	1974-76
University of California, Berkeley	MPH	Biostatistics & Epidemiology	1971-72 & 1976-77
University of California, Los Angeles		Internal Medicine Resident	1977-80
University of London, Institute of Dermatology		Dermatology	Mar-Apr 1980
All India Institute of Medical Sciences, New Delhi		Dermatology	May-Jun 1980
University of California, San Francisco		NIH Fellowship, Clinical Pharmacology	1980-81
University of California, Irvine		NIH Fellowship, Clinical Pharmacology	1982-83
University of California, Irvine		Dermatology Resident	1981-84

BOARD CERTIFICATION

American Board of Internal Medicine	1980
American Board of Dermatology	1984
American Board of Cosmetic Surgery	1989

OTHER CERTIFICATIONS: Advanced Cardiac Life Support, Advanced Trauma Life Support

PRESENT ACTIVITY: Investigator Initiated Research, Private: Practice Medical Dermatology & Dermatologic Surgery

LIPOSUCTION101: AN INSTRUCTIONAL HANDS-ON COURSE IN TUMESCENT LIPSUCTION: A 3-day course limited to 12 students taught by together with Dr. Norma Kassardjian, 3 to 4 times per year (www.liposuction101.com)

PREVIOUS EMPLOYMENT: California Emergency Physicians, Inc., Emergency Room Physician 1979-1985

PROFESSIONAL SOCIETIES:

American Academy of Dermatology (AAD)
American Society for Dermatologic Surgery (ASDS)
American Society of Anesthesiologists (ASA)
International Anesthesiology Research Society (IARS)
International Society of Thrombosis and Hemostasis (ISTH)
Surgical Infection Society (SIS)
International Association for the Study of Pain (IASP)

HONORS & LECTURESHIPS:

2004 American Society for Dermatologic Surgery President's Award, "Outstanding & Unique Contributions to Dermatologic Surgery and The American Society for Dermatologic Surgery."

2008 American Society of Cosmetic Dermatology and Aesthetic Surgery (ASCDAS) EnvisiON Award for Life Time Achievement.

2015 The American Society for Dermatologic Surgery Leadership in Innovation Lectureship & Award

2016 The American Academy of Dermatology Eugene J. Van Scott Award for Innovative Therapy of the Skin and Phillip Frost Leadership Lecture

2017 Masters of Aesthetics Fitzpatrick Lecture, August 25, San Diego, CA

LEADERSHIP IN PROFESSIONAL SOCIETIES:

Founding Secretary: American Society for Mohs Surgery, 1994
President. Orange County Society for Dermatology, 2003-2004
Chairman Department of Dermatology, Hoag Hospital, Newport Beach, CA
Board of Directors, American Society for Dermatologic Surgery: 2008-2011.

UNIVERSITY COMMITTEES:

University of California, Riverside Foundation, Board of Trustees 2012 to present
The Dean's Advisory Committee, College of Natural and Agricultural Sciences, UC Riverside. 2005 to 2012

INVITED-GUEST LECTURES

2003 Society for Ambulatory Anesthesia
2004 British Association of Aesthetic Plastic Surgeons (Chester, England)
2005 Brazilian Society for Dermatologic Surgery (Manaus, Brazil)
2006 California Congress of Dermatology and Dermatologic Surgery (San Diego)
2006 Italian Society for Aesthetic Surgery (Rome)
2006, 2007, 2008 Mass Gen Hospital, Wellman Institute, Laser Medicine Course (Boston)
2008 Brazilian Society for Dermatologic Surgery (Campo do Jordão, Brazil)
2015 The American Society for Dermatologic Surgery Leadership in Innovation Lectureship & Award
2016 The American Academy of Dermatology Eugene J. Van Scott Award for Innovative Therapy of the Skin and Phillip Frost Leadership Lecture
2016 Israel Society for Dermatologic Surgery Lifetime Achievement Award
2017 Masters of Aesthetics, Fitzpatrick Lectureship
2018 Keynote Speaker: Chinese Academic Conference on Adipose Medicine, Shanghai.

Community Service: Jeffrey Klein Endowed Scholarship (by Kathleen Hutton-Klein & Jeffrey Klein) for two students, UC Berkeley-UCSF Joint Medical Program (JMP).

NATIONAL TELEVISION INTERVIEWS

20/20 (ABC) 1995
Larry King Live 1995

SCIENTIFIC PUBLICATIONS

- 1) Klein, JA. Optimal Statistical Techniques in Estimating Patient Compliance. Preventive Med, 1979.
- 2) Klein JA, Cole G, Barr RJ, Bartlow G, Fulwider C. Paraffinoma of the Scalp, Arch Derm 121:382-385,1985.
- 3) Klein JA, Barr RJ. Verrucous Hemangioma, J Pediat Derm, 2:191-193,1985.
- 4) McCullough JL, Peckham P, Klein J, Weinstein GD, Jenkins JJ. Regulation of epidermal proliferation in mouse epidermis by combination of difluoromethyl ornithine (DFMO) and Methylglyoxal Bis(guanyldrazone) (MGBG), J Invest Derm 85:518-521,1985.
- 5) Klein JA, McCullough JL, Weinstein GD. Topical tritiated thymidine for epidermal growth fraction determination. J Invest Derm 86:406-409,1986.
- 6) Klein JA, Barr RA. Diffuse lipomatosis and tuberous sclerosis. Arch Derm 122:1298-1302,1986.
- 7) Klein JA. The tumescent technique for liposuction surgery. J Am Acad Cosmetic Surg, 1987; 4:263-267.
- 8) Klein JA. Anesthesia for liposuction in dermatologic surgery. J Derm Surg Oncol 14:1124-1132,1988.
- 9) Stewart JH, Cole GW, Klein JA. Neutralized lidocaine with epinephrine for local anesthesia. J Dermatol Surg Oncol 15:1081-1083,1989.
- 10) Klein JA. Tumescent technique for regional anesthesia permits lidocaine doses of 35 mg/kg for liposuction. J Derm Surg Oncol 16:248-263,1990.
- 11) Klein JA, Barr RJ. Bannayan-Zonana Syndrome Associated with Lymphangiomyomatous lesions. J Pediat Dermatol 7:48-53, 1990.
- 12) Klein JA. The Tumescent Technique: Anesthesia and Modified Liposuction Technique. Dermatol Clinics 8:425-437,1990.
- 13) Stewart JH, Chen SE, Cole GW, Klein JA. Neutralized lidocaine with epinephrine for local anesthesia, II. J Dermatol Surg Oncol. 1990; 16:842-845,1990.
- 14) Klein JA, Anesthesia for dermatologic cosmetic surgery. Coleman WP III, Hanke CW, Alt TH, Asken S, editors, Cosmetic Surgery of the Skin: Principles and Techniques. Philadelphia, B. C. Decker Inc. 1991, pp 39-45.
- 15) Coleman WP III, Klein JA. Use of the tumescent technique for scalp surgery, dermabrasion, and soft tissue reconstruction. J Dermatol Surg Oncol 18:130,1992.
- 16) Klein JA, Soins post-operatoires apres liposculpture utilisant la technique tumescente (Postoperative Care Following Liposuction by the Tumescent Technique), La Revue de Chirurgie Esthetique de Langue Francaise 17:5-8,1992.
- 17) Klein JA. Tumescent technique for local anesthesia improves safety in large volume liposuction.

- Plast Reconstr Surg 1993; 92:1085-1098.
- 18) Klein JA. Reply: Ethics of promoting patient safety and comity among surgical specialties. [letter] *Plast Reconstr Surg* 95:603-604,1995.
 - 19) Klein JA. Establishing a Dermatologic Surgicenter, Elson M, editor, *Evaluation and Treatment of the Aging Face*. Springer-Verlag, publishers, New York 1995, pp 255-260.
 - 20) Klein JA, Liposuction. Moy R, Lask G, editors, *Principles and Techniques of Cutaneous Surgery*. Mc Graw-Hill, New York, 1996, pp 529-542.
 - 21) Klein JA, Tumescent liposuction and improved postoperative care using Tumescent Liposuction Garments™. *Dermatol Clinics*, 13:329-338, April 1995.
 - 22) Klein JA, Tumescent Technique Chronicles: Local Anesthesia, Liposuction, and Beyond. *Dermatologic Surg*. 21:449-457, 1995.
 - 23) Klein JA, Epitomes, *Dermatology: Tumescent technique for local anesthesia*. *West J Med* 164:517,1996.
 - 24) Klein JA. Tumescent liposuction with local anesthesia. *Principles and Techniques of Cutaneous Surgery*. Lask GP, Moy RL editors. McGraw-Hill, New York, 1996. pp 529-542.
 - 25) Klein JA, Anesthesia for dermatologic cosmetic surgery. Coleman WP III, Hanke CW, Alt TH, Asken S, editors, *Cosmetic Surgery of the Skin: Principles and Techniques*. 2nd Edition. Philadelphia, B. C. Decker Inc., 1997
 - 26) Klein JA. Two Standards of Care for Tumescent Liposuction. *Derm Surg J* 24:1194-1195,1997
 - 27) Klein JA, Kassarijadian N. Lidocaine toxicity with tumescent liposuction. A case report of probable drug interactions. *Dermatol Surg*. 1997;23:1169-74.
 - 28) Klein JA, Tumescent Liposuction, Chapter 9, in Dzubow LM, editor, *Cosmetic Dermatologic Surgery*, Lippincott-Raven, Philadelphia, 1998,p163-169.
 - 29) Klein AW, Narins RS, Klein JA. Tumescent Liposuction. *Fitzpatrick's Dermatology in General Medicine*, 5th edition, McGraw Hill, New York, 1999, pp2967-2969.
 - 30) Klein, JA. Intravenous fluids and bupivacaine are contraindicated in tumescent liposuction (letter), *Plastic Reconstr Surg* 102:2516-2518,1998.
 - 31) Klein JA. Anesthetic formulations of tumescent solutions. *Dermatologic Clinics*, 17:751-759,1999.
 - 32) Klein JA. Post-tumescent liposuction care: open drainage and bimodal compression. *Dermatologic Clinics*, 17:881-889,1999.
 - 33) Klein JA. Deaths related to liposuction. *N Eng J Med* 1999; 341:1001.
 - 34) Klein JA. Commentary: Fulton J. Modified Tumescent Liposuction. *Dermatol Surg* 25:764-766,1999.
 - 35) Klein JA. Discussion: Perry AW, Petti C, Rankin M. Lidocaine is not necessary in liposuction. *Plast Reconstr Surg*. 1999 Nov;104: discussion 1903-6
 - 36) Klein JA. Is the tumescent solution bactericidal? Letter regarding "Antibacterial effects of tumescent lidocaine." *Plast Reconstr Surg*. 1999 Nov;104:1934-6.
 - 37) Klein JA, *Tumescent Technique: Tumescent Anesthesia & Microcannular Liposuction*. Mosby, St. Louis, approx 500 pages. March, 2000.
 - 38) Klein JA. Pharmacology of Tumescent Liposuction. Ch 21. pp 443-445. In *Cosmetic Surgery: An Interdisciplinary Approach*, Narins RS editor, Marcel Dekker, New York, 2001.
 - 39) Klein JA Liposuction Using Dilute Local Anesthesia: Counterpoint. *Dermatol Surg* 29:1146-7, 2003.
 - 40) Klein JA, *Is Tumescent Liposuction Safe?*, Baran R, Maibach HI, Editors, *Textbook Cosmetic Surgery*, 3rded. 2005, Chapter 64, pages 621-628, Taylor&Francis Publishers, London&New York (ISBN 1-84184-311-3)
 - 41) Kucera IJ, Lambert TJ, Klein JA, Watkins RG, Hoover JM, Kaye AD. Liposuction: contemporary issues for the anesthesiologist. *J Clin Anesth*. 18:379-87, 2006.
 - 42) Wanner M, Mihm MC, Farinelli WA, Doukas A, Zurakowski D, Piris A, Avram MM, Klein JA, Anderson RR. Use of Photodynamic Therapy and Sterile Water to Target Adipose Tissue. *Dermatol Surg*. 2015;41:803-11.
 - 43) Klein JA, Jeske DR. Estimated maximal safe dosage of tumescent lidocaine. *Anesth Analg*2016;122:1350-9.
 - 44) Klein JA, Langman LJ. Tumescent anesthesia antibiotic delivery: pharmacokinetics of subcutaneous cefazolin and metronidazole in a tumescent solution for prevention of surgical infections and biofilms. *Plast Reconstr Surg Glob Open* 2017; 5,e1351.
 - 45) Klein JA, Zand AR, Klein LEW, Klein PA, vanZandt J: *invivoPFT*: digital photographic analysis measurement of bleeding volume during a Ivy Bleeding Time test (ready for submission).
 - 46) Klein JA, Auslander AN. Subcutaneous tumescent lidocaine attenuates in-vivo systemic platelet function. In preparation.
 - 47) Kim DP, Makdisi J, Klein PA, Klein JA. Tumescent Contravenom: Murine model for Pre-hospital Treatment of Naja naja Neurotoxic Snake Envenomation. *Int J Dermatol*. 2018;57:605-610.

Current Research

Tumescent Infiltration of Antibiotics for Surgical Site Infection, Thrombosis and Sepsis Prophylaxis: A Multicenter Open Label Randomized Clinical Trial

Bleeding Volume Test: A Double-Blind Crossover Randomized Clinical Trial of *invivoPFT*, a Platelet Function Test.
 Tumescant Lidocaine for Platelet Function Inhibition
 Mouse Model of Pre-hospital Treatment for Snake Envenomation

Commercial Interests Related to Medicine & Dermatologic Surgery

HK Surgical, Inc.	Surgical Supplies for Tumescant Anesthesia & Liposuction	www.hksurgical.com
Liposuction.Com	Information for Prospective Patients & Surgeon Directory	www.liposuction.com
Liposuction 101	Hands-On Teaching Course (27 Hours CME)	www.liposuction101.com

United States Patents (www.uspto.gov)

U.S. PAT. NO.	Title
5,052,999	Liposuction method and apparatus
5,682,607	Skin appliqué to provide protection from ultraviolet light
D387,167	Liposuction patient positioning support (Design Patent)
5,817,050	Liposuction cannula
5,950,238	Post-liposuction breast compression garment and method for edema reduction
6,032,669	Positioning pillow for approximating anatomic position in lateral decubitus position
6,162,960	Compression sponge for wound care
6,676,677	Liposuction cannula with abrading apertures
6,849,775	Method of forming absorbent pad using precut overlay (2005)
7,364,545	Method of measuring bleeding volume (2008)
7,572,613	Drug delivery system for accelerated subcutaneous absorption (2009)
7,914,504 B2	Infiltration Cannula (March 29, 2011)
8,105,310 B2	Infiltration Cannula (Jan. 31, 2012)
8,118,572	Peristaltic pump tubing with stopper and cooperative roller assembly housing having no moving parts (Feb 21, 2012)
8,167,866 B2	Drug Delivery System For Accelerated Subcutaneous Absorption (May 1, 2012)
8,246,587 B2	Infiltration Cannula (Aug 21, 2012)
8,417,544 B2	Research Collaboration System (April 9, 2013) http://www.google.com/patents/US8417544
8,506,551 B2	Infiltration Cannula (Aug13, 2013)
8,512,292 B2	Infiltration Cannula (Aug 20, 2013)
8,515,006 B2	Fiducial System for Mammography (Aug 20, 2013)
8,529,541 B2	Infiltration Cannula (Sept 10, 2013)
8,579,612 B2	Peristaltic pump tubing with stopper and cooperative roller assembly housing having no moving parts (Nov 12, 2013)
8,923,477 B2	Fiducial System for Mammography (Aug 20, 2013)
8,957,060 B2	Tumescant Antibiotic Solution (Feb. 17, 2015)
9,384,925 B2	Sterile disposable remote pneumatic actuators (Jul 5, 2016)
9,623,030	Tumescant Antibiotic Solution (April 18, 2017)
US2017/0100331 A1	Tumescant Infiltration Drug Delivery of High Subcutaneous Drug Concentrations with Prolonged Local and Systemic Effects and Minimal Local or Systemic Toxicity

**Principal Investigator for Clinical Trials Registered on www.ClinicalTrials.Gov
[ClinicalTrials.gov](http://www.ClinicalTrials.gov) Identifier**

NCT00977028	TLA Peak	Tumescant Lidocaine Maximum Safe mg/kg Dosage Accepted for publication in Anesthesia & Analgesia 2015
NCT01046981	TAD	Tumescant Antibiotic Delivery: Pharmacokinetic Evidence For Improved Surgical Site Infection Prevention Results to be submitted for publication 2015
NCT01047722	BVT-ASA	In-Vivo Bleeding Volume Test for Platelet-Aspirin Interaction
NCT01463280	BA-LidoLipo	Tumescant Lidocaine Effects on Platelet Function Following Liposuction Surgical Trauma: A Prospective Controlled Dosage-Response Phase I Clinical Trial
NCT02503904	TAAD Randomized	Tumescant Anesthesia Antibiotic Delivery for Surgical Site Infection, Thrombosis and Sepsis Prophylaxis: A Multicenter Open Label Clinical Trial

Pending
Prophylaxis:

TAAcyc

Tumescent Infiltration Acyclovir for Post Herpetic Neuralgia
A Multicenter Open Label Randomized Clinical Trial