

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/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 Howard Maibach		POSITION TITLE Professor of Dermatology, UCSF	
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Tulane University	AB	1947-1950	
Columbia University		1950-1951	
Tulane University	MD	1951-1955	
Hospital of the University of Pennsylvania		1959-1961	Fellow

A. Personal Statement

The goal of the proposed research is to further develop current understanding of the steps involved in human percutaneous penetration, especially decontamination. I am uniquely suited to help Farhaan pursue this work as I have been a pioneer in this field from its very beginning decades ago. I have the expertise, leadership, and motivation necessary to successfully carry out the proposed work. I have a broad background in dermatology, and I have published extensively in the following fields: dermatopharmacology, dermatotoxicology, psoriasis and, exogenous dermatoses. In addition, I have the experience and motivation to help Farhaan complete his project in a timely manner. Our laboratory has trained in excess of 100 PhD candidates, medical students, postdocs, and fellows (Please see bibliography as first name is usually a trainee). Farhaan and I have worked together by email and telephone since last October. His CV attests to his scholarly excellence and research motivation. In the decades of working with students and postdocs, Farhaan has demonstrated the greatest aptitude in defining and understanding a research/clinical problem of any of the trainees that I have worked with. He has demonstrated a keenness that is to be encouraged. I will mentor and work with Farhaan at least 5 days weekly. The dermatology lab consists of myself, one staff member (Dr. Xiaoying Hui), and three to four full time students per year. I will require Farhaan to attend approximately 8 hours of seminars / lectures per week as well as enroll in any of the many UCSF courses that are applicable.

B. Positions and Honors

<u>Institution</u>	<u>Title</u>	<u>From</u>	<u>-</u>	<u>To</u>
Dermatology, UCSF	Assistant Professor	1961	-	1966
Dermatology, UCSF	Associate Professor	1967	-	1973
Cancer Research Institute	Research Associate	1967	-	present
Dermatology, UCSF	Professor	1973	-	present
University of California, Faculty Club	Senior Member, Board of Directors	1979	-	1980
Dermatology	Vice Chairperson	1973	-	present
Ad Hoc Peer Review Committee	Academic Vice Chancellor	1983	-	present
Subcommittee on Quality of Care	Senior Member	1983	-	present
Occupational Dermatology Clinic, UCSF	Chief	1984	-	present

HONORARY DEGREES

L'Universite de Paris-Sud	Ph.D.	Nov 18, 1985
Université Claude Bernard Lyon 1,	Ph.D.	Nov 19, 2008
	Lyon, France	

MEMBERSHIP IN SCIENTIFIC SOCIETIES

American Academy of Dermatology		1961-present
San Francisco Dermatological Society		1961-present
Secretary-Treasurer		1966-1967
President		1970-1971
Pacific Dermatologic Association		1961-present
Society for Investigative Dermatology		1961-present
New York Academy of Sciences		1961-1985
California Medical Association		1962-present
Scientific Board, House of Delegates		1969-1972
Committee on California Medicine		1969-1972
Committee on Environmental Health		1970-1973
Advisory Panel to the Section on Dermatology		1972-1974
American College of Physicians		1964-present
American Federation for Clinical Research		1964-present
American Medical Association		1964-present
Consultant for <u>Drug Evaluations</u> , 6th edition		1993-present
San Francisco Medical Society		1964-present
American Society for Clinical Pharmacology & Therapeutics		1967-1995
American Dermatological Association		1969-present
International Society of Topical Dermatology		1971-present
Charter Membership, American College of Toxicology		
DATTA (Diagnostic and Therap. Technical Assessment)		1982-present
Advisor to Japanese Society for Cutaneous Health		1983-present
Fellowship, The Academy of Toxicological Sciences		1992
International Society for Digital Imaging of Skin (ISDIS), Board of Directors		1992-present
International Society for Digital Imaging of Skin (ISDIS), Honorary Membership		1993
International Commission on Occupational Health (ICOH)		1993-present
Scientific Committee on Occupational Dermatoses		
Honorary Member, American Contact Dermatitis Society		1999 – present
Diplomate, American College of Forensic Examiners and American Board of Forensic Medicine		1999 – present
Honorary Member, Council of Italian, Society of Allergological Professional and Environmental Dermatology		2008 –present

C. Selected Peer-reviewed Publications (Most relevant and recent of 2500+ publications to current application)

Jungman E, Pirot F, Maibach H. Ex vivo calcium percutaneous egression in normal and tape-stripped human skin. *Cutan Ocul Toxicol.* 2011 Oct 7. PubMed PMID: 21978285.

Hui X, Elkeeb R, Chan H, Maibach HI. Ability to estimate relative percutaneous penetration via a surrogate maker - trans epidermal water loss? *Skin Res Technol.* 2012 Feb;18(1):108-13. PubMed PMID: 21605169.

Zheng Y, Sotoodian B, Lai W, Maibach HI. Buffering capacity of human skin layers: in vitro. *Skin Res Technol*. 2012 Feb;18(1):114-9. PubMed PMID: 21535188.

Alikhan A, Cheng LS, Ale I, Andersen KE, Bruze M, Eun HC, Goh CL, Goossens A, Lachapelle JM, McFadden J, Nixon R, Sasseville D, Maibach HI. Revised minimal baseline series of the International Contact Dermatitis Research Group: evidence-based approach. *Dermatitis*. 2011 Apr;22(2):121-2. PubMed PMID: 21504701.

Alikhan FS, Maibach H. Topical absorption and systemic toxicity. *Cutan Ocul Toxicol*. 2011 Sep;30(3):175-86. PubMed PMID: 21425950.

Konda S, Maibach HI. Percutaneous penetration of 5-methoxypsoralen in rhesus monkeys. *Food Chem Toxicol*. 2011 May;49(5):1092-5. PubMed PMID: 21281688.

Zheng Y, Vieille-Petit A, Chodoutaud S, Maibach HI. Dislodgeable stratum corneum exfoliation: role in percutaneous penetration? *Cutan Ocul Toxicol*. 2011 Sep;30(3):198-204. PubMed PMID: 21226557.

Rehal B, Maibach H. Percutaneous absorption of vapors in human skin. *Cutan Ocul Toxicol*. 2011 Jun;30(2):87-91. Epub 2010 Nov 20. PubMed PMID: 21091036.

Burgher F, Mathieu L, Lati E, Gasser P, Peno-Mazzarino L, Blomet J, Hall AH, Maibach HI. Part 2. Comparison of emergency washing solutions in 70% hydrofluoric acid-burned human skin in an established ex vivo explants model. *Cutan Ocul Toxicol*. 2011 Jun;30(2):108-15. PubMed PMID: 21083510.

Hostynek JJ, Dreher F, Maibach HI. Human skin penetration of a copper tripeptide in vitro as a function of skin layer. *Inflamm Res*. 2011 Jan;60(1):79-86. PubMed Central PMCID: PMC3016279.

Hostynek JJ, Dreher F, Maibach HI. Human skin retention and penetration of a copper tripeptide in vitro as function of skin layer towards anti-inflammatory therapy. *Inflamm Res*. 2010 Nov;59(11):983-8. PubMed Central PMCID: PMC2945467.

Farahmand S, Maibach HI. "Estimating skin permeability from physicochemical characteristics of drugs: A comparison between conventional models and an in vivo-based approach." *Int J Pharm*. 2010 Jul 2. PubMed PMID: 20600748.

Farahmand S, Maibach HI. Corrigendum to "Transdermal drug pharmacokinetics in man: Interindividual variability and partial prediction". *Int J Pharm*. 2010 Jul 2. PubMed PMID: 20600747.

Elkeeb R, Hui X, Chan H, Tian L, Maibach HI. Correlation of transepidermal water loss with skin barrier properties in vitro: comparison of three evaporimeters. *Skin Res Technol*. 2010 Feb;16(1):9-15. PubMed PMID: 20384878.

Fosse C, Mathieu L, Hall AH, Bocchietto E, Burgher F, Fischbach M, Maibach HI. Decontamination of tetramethylammonium hydroxide (TMAH) splashes: promising results with Diphoterine in vitro. *Cutan Ocul Toxicol*. 2010 Jun;29(2):110-5. PubMed PMID: 20233016.