DERMAL PHARMACOLOGY & TOXICOLOGY

APRIL 20, 2007
NEWARK AIRPORT HILTON, NEWARK, N.J.
INSTRUCTED BY KAREN COSTA-STRACHAN, Ph.D.

COURSE OUTLINE

This course is designed to provide students with an in-depth overview of dermal pharmacology and toxicology. Emphasis will be placed on basic skin structure and function, key skin conditions (acne, rosacea, wrinkling) skin metabolism of drugs and xenobiotics, transdermal transport, percutaneous absorption, allergic contact dermatitis, irritant dermatitis, intrinsic and extrinsic aging of the skin and the impact of retinoids, etc: phototoxicity, photoallergy, photocarcinogenicity, topical cosmetic safety testing and the use of noninvasive bioengineering techniques in the assessment of dermal toxicity.

Instructional Units

A. Overview of skin structure/function/cell types, skin physiology, the role of the stratum corneum in skin barrier function, compromise of skin barrier function and wound repair, how topicals impact the epidermis.
B. Skin metabolism/pharmacology, percutaneous absorption of materials from topical cosmetics, topical drugs, etc.; transdermal transport mechanisms
C. Irritant vs. allergic contact dermatitis and the need for clinical safety testing of cosmetics, the Kligman human and guinea pig maximization test, HRIPT (human repeat insult patch testing) common irritants and allergens, skin reactions to perfumes and preservatives
D. Phototoxicity, photoallergy, photoallergy, photocarcinogenicity (skin cancer), the role of sun exposure, use of sunscreens
E. Dermal photodamage as compared to intrinsic, chronological aging of the skin
F. Current in vivo and in vitro models of prediciting dermal toxicity, dermal irritancy/allergenicity using computer modeling: QSAR, DEREK
G. Noninvasive bioengineering techniques in the assessment of skin response/reactions to cosmetics: laser Doppler imaging (LDI), reflectance spectrophotometry, colorimetry, skin conductance/capacitance (Novameter, SkiCon, Corneometer) for moisturization assessment, transepidermal water loss (TEWL) via Evaporimetry, skin pH assessment, replica analysis for changes in skin's microtopography, D'Squame analysis, Canfield digital photography of the skin for P. acnes/pigmentation changes/aging, etc.

Objectives: Upon completion of this course, the student will

A. Have a thorough comprehension of skin pharmacology and toxicology
B. Be familiar with an able to discuss skin structure and function, skin physiology, skin metabolism as related to percutaneous absorption and transdermal transport
C. Understand and be able to distinguish intrinsic versus extrinsic aging of the skin
D. Understand and be able to discuss the difference between allergic contact dermatitis vs. irritant dermatitis, citing examples of agents responsible for causing both conditions
E. Have a clear understanding of photocarcinogenicity (skin cancer) and photoxicity/photoallergy and the relationship of these conditions to sun exposure
F. Be able to describe and cite examples of noninvasive bioengineering techniques in the clinical assessment of skin condition

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Scheduled Lecture Topics:

1. Skin Structure and Function
2. Cutaneous Metabolism
3. Inflammation and Irritation: Mechanism, Causative Agents and Testing
4. Allergic Contact Dermatitis I: Mechanism and Patch Testing
5. Allergic Contact Dermatitis II: Causative Agents
6. Phototoxicity
7. Photoallergenicity
8. Photocarcinogenicity
9. Risk Assessment of Potential for Cosmetic Skin Reactions
10. Child versus Adult Skin
11. Intrinsic (Chronological) vs. Extrinsic (Photodamage) Aging of the Skin; Ways to Prevent and Alleviate
12. Free Radicals and Antioxidants; the natural anti-oxidant capacity of the skin and the need to supplement
13. Percutaneous Absorption
14. Non-invasive clinical testing of the skin

FEES

	Early Fee	Late Fee (After 04/09/07)
SCC Member	**$300.00**	**$350.00**
SCC Student Member	**$150.00**	**$175.00**
Non-Member	**$425.00**	**$475.00**

About The Instructor

Karen A. Costa-Strachan, Ph.D. is currently Director of Regulatory Affairs at Prestige Brands Holdings, Inc. in New York. Prior to that she has held positions at Doctor's Dermal Formula, Playtex Products and Avon Products. Her varied experience encompasses skin care products as well as OTC drug products and medical devices. Dr. Costa-Strachan has managed both U.S. and International Product Safety, Regulatory Affairs and Quality support for all product categories. Dr. Costa-Strachan has earned her Ph.D. degree in Pharmaceutical Sciences (Toxicology) and M.S. degree in harmaceutical Sciences (Pharmacology) from St. John's University School of Pharmacy & Allied Health, New York. She completed two postdocs at the University of Pennsylvania School of Medicine, where she held an N.I.H. Fellowship at the Institute for Environmental Medicine under Aaron Fisher, M.D. as well as training in dermatological science under Albert Kligman, M.D. Dr. Costa-Strachan is an adjunct Assistant Professor in the Cosmetic Science Program at Fairleigh Dickinson University in Teaneck, NJ as well as a adjunct Assistant Professor of Toxicology at St. John's University in New York.

-Course hours: 9:00 A.M. – 5:00 P.M.
-Registration fee includes all course materials, lunch, coffee & beverage breaks. *Parking is not included. -Registrants must make hotel accommodations on their own, if needed. Contact the Newark Airport Hilton (908) 351-3900.The SCC has blocked a limited number of guest rooms at a discounted rate. Indicate to reservation agent that you will be attending this SCC function. These rates are available for a limited time so please make your reservations by 3/19/07.

-Fees for the course are transferable but not refundable after 03/09/07. Applications who do not transfer to attend a different course will be subject to a $50.00 administration fee. -ALL CHECKS ARE TO BE PAID IN U.S. DOLLARS DRAWN ON A BANK WITH AN ADDRESS IN THE UNITED STATES AND MADE PAYABLE TO SOCIETY OF COSMETIC CHEMISTS.

If five or more employees from the same company register for the same course, they may deduct $25.00 from each registration. If ten or more register they may deduct $50.00 for each registration. **NOTE: The SCC reserves the right to cancel any course for which there is insufficient registration. A full refund will be issued in this circumstance.**

SCC

REGISTRATION FORM

REGISTRATIONS CAN BE SENT TO SCC VIA:

MAIL:
Society of Cosmetic Chemists
120 Wall Street, Suite 2400
New York, NY 10005-4088

FAX:
(212) 668-1504

American Express, Visa and Master Cards are accepted for payment. All Checks should be made payable to Society of Cosmetic Chemists. Please type or print your name, as you want it to appear on your badge and certificate. Reproduce this from for additional registrations. *All courses must be paid in full before course date. **DO NOT ASSUME YOU ARE REGISTERED UNLESS YOU RECEIVE A PRINTED CONFIRMATION BY MAIL OR FAX.**

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