

Registration Form

Course Offering # **0907-303**

Pathways to Skin Penetration

July 13–14, 2009 • New Brunswick, NJ

Priority Code: **520**

(Please use this code when registering)

Dr. Mr. Ms. _____
First Name Last Name

Job Title _____

Company/Institution _____

Company Address _____

City _____ State _____ Zip _____

Tel _____ Fax _____

E-mail Address _____

(Required in order to send confirmation material. CfPA does not rent or sell e-mail addresses)

Note: Please complete separate form for each registrant.

Tuition and Payment Methods

Early Registration (Save \$200)
(Must register and pay by May 18, 2009)

U.S. \$ **1275** / \$ **1215**

Regular Registration

U.S. \$ **1475** / \$ **1415**

Tuition payable in US funds net of all charges includes continental breakfast, luncheon, breaks and course notes.

*Group Rate is per person, for two or more enrollments registering at the same time, from the same company, for the same course.

Note: Payment is due before course start date.

Send Invoice

Purchase Order # _____
(If Required)

Check (payable in U.S. funds to The Center for Professional Advancement)

Credit Card

Visa MasterCard American Express Discover

Card # _____ Exp. Date _____

Cardholder Name _____

Signature _____

ID 2149

C8-304

3 Ways To Register

- Internet: www.cfpa.com
- Fax registration form to: **732.238.9113**
- Mail registration form to:

The Center for Professional Advancement (CfPA)
P.O. Box 7077
East Brunswick, NJ 08816-7077

General Information

Payment: Tuition payable in US funds net of all charges. Payment is due BEFORE course start date. If payment has not been received two weeks before the course, a credit card will be required to guarantee registration.

Discounts/Rates: To receive the Early Registration Discount, payment is required at time of registration and/or BEFORE early registration discount expires or the regular tuition rate will apply. If choosing invoice/check/wire transfer, payment must be received prior to expiration of early registration discount or the regular tuition rate will apply. All tuition prices are a per person rate. To qualify for the Group Rate tuition, registration must be for two or more enrollments registering at the same time, from the same company, for the same course. Multiple discounts not applicable.

Cancellations/Substitutions/FEES: All cancellations are subject to a \$150.00 processing fee. Applicants may cancel up to two weeks prior to the course start date for a refund. If less than two weeks, a credit will be issued that can be used towards a future course up to one year from the date of issuance. No refunds or credit will be issued for those who do not attend the scheduled course and/or cancel less than two working days before the start date. Substitutions are permitted at any time. If for any reason, CfPA decides to cancel this course, we are not responsible for airfare, hotel or other costs incurred by the registrant. Program content, schedule and instructors are subject to change without notice.

Confirmation Letters: Before each course begins, all registrants will receive written confirmation including detailed information regarding course location – VIA EMAIL. If confirmation is not received two weeks prior to the course please contact Customer Service.

For questions/more information contact Customer Service at 732-613-4500 or info@cfpa.com

Our full terms and conditions can be found on our website at www.cfpa.com

Courses of Interest

- **Cosmetic Product Formulation**
course id# 1350
- **Ingredients for Cosmetics and Toiletries**
course id# 971
- **REACH: Registration, Evaluation and Authorization of Chemicals**
course id# 2145
- **Skin Inflammation From Triggers to Aging**
course id# 2274
- **Skin Product Development**
course id# 1050
- **Sunscreen Regulation Technology and Product Development**
course id# 2017

Who We Are

The **Center for Professional Advancement (CfPA)** is the largest accredited technical training organization in the world with a curriculum of approximately 350 short courses in 18 industries including Pharmaceutical, Biotechnology, Medical Device, Chemical, Cosmetics, Food and more.

Since our founding in 1967, we have successfully trained nearly a half million people worldwide in topics ranging from basic and introductory concepts to new advances and cutting-edge technology, and current U.S. and European regulations. CfPA courses are offered in a variety of formats – Public offering, Client Site and Online – to fit you or your company's training needs.

Accreditations



The **Center for Professional Advancement** has been approved as an Authorized Provider by the **International Association for Continuing Education and Training (IACET)**, 8405 Greensboro Drive, Suite 800, McLean, VA 22102. In obtaining this approval, **The Center for Professional Advancement** has demonstrated that it complies with the ANSI/IACET Standards which are widely recognized as standards of good practice internationally. As a result of their Authorized Provider membership status, **The Center for Professional Advancement** is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standards.



The **Center for Professional Advancement (CfPA)** is accredited by the **Accreditation Council for Pharmacy Education** as a provider of continuing pharmacy education. **Continuing Education Units (CEU)** will be awarded only upon successful completion of the course, i.e., attendance at essentially all the formal sessions and submission of a course evaluation. The **CEU** rate is 0.1 **CEU** per contact hour; statement of credit will be mailed within six weeks. You will have an opportunity to evaluate your successful completion of these course objectives through a **Learning Assessment**. *This offering is Program# 716-000-07-713-L04*

This course (#08-672) has been approved for **2.0 Certification Maintenance Points** by **The American Board of Industrial Hygiene (ABIH)** for recertification.

The Center for Professional Advancement

P.O. Box 7077, East Brunswick, NJ 08816-7077

Phone: 732.238.1600 • Fax: 732.238.9113

E-mail: info@cfpa.com

www.cfpa.com

SAVE \$200-Register & Pay by May 18

July 13–14, 2009
New Brunswick, NJ

Pathways to Skin Penetration

Course Topics Include:

- Skin Structure
- Transdermal Delivery: Advantages, Limitations and Technologies
- Skin Permeation Enhancers
- Gradients in the Skin
- Role of Pilosebaceous Path
- The Polar Path
- In Vitro Models

Directed by:

Nava Dayan, Ph.D.
Skin Care Research Expert



CfPA

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Who Should Attend

This **overview** is intended for individuals who are interested in expanding their knowledge and understanding of recent findings about the skin as a barrier, possible ways of interaction between the skin and applied compounds and patterns, and pathways for penetration into and through the skin. Attendees may hold a function in the following areas:

- Skin Research and Development
- Formulation Chemistry
- Toxicology and Regulatory Affairs
- Technical Sales and Marketing
- Design and Development of topically applied formulations

Learning Objectives

Upon completion of this course, you will be able to:

- Identify the different possible pathways of penetration to the skin
- Outline the parameters that contribute to its barrier properties
- Specify potential approaches to resolve bioavailability limitations

In addition, participants will study the different gradients in the skin that may contribute to penetration patterns, structure and function of the different openings in the skin and models of related research.

Course Description

This two-day course is tailored for individuals who want to gain better understanding in the detailed structure of the skin and the correlation between structure and penetration.

Participants will be introduced to the biochemistry of the upper layer of the skin, the stratum corneum, and the different theories about pathways of penetration through it.

The course will provide tools for understanding the limitations in penetration and will suggest possible ways to overcome the skin barrier. It will discuss testing models as well as considerations to be taken such as skin age and condition.

Pathways to Skin Penetration

COURSE OUTLINE

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First Day

8:00 a.m.: Registration/Continental Breakfast

8:30–10:00 a.m.:

- Skin structure
 - The stratum corneum
 - The living epidermis
 - The dermis
 - The hypodermis

10:30–12:00 noon:

- The intercellular lipids
- The role of ceramides
- The role of fatty acids
- The role of cholesterol and its esters

1:00–2:30 p.m.:

- Gradients in the skin and their possible role in partitioning
 - The water gradient
 - The pH gradient
 - The lipid gradient
 - The calcium gradient

3:00–4:30 p.m.:

- The role of pilosebaceous glands in skin penetration
 - Sebum composition
 - Sebum flow
 - Pore size
 - Models for pore penetration
- Q/A Workshop

Second Day

8:30–10:00 a.m.:

- The polar/pore pathway
 - Location
 - Size
 - Penetration patterns
- In vitro models for skin penetration
 - Valia diffusion chambers
 - Franz diffusion chambers
 - Membrane types: animal skin, cadaver, synthetic
- In vivo models for skin penetration
 - Tape stripping
 - Skin biopsies

10:30–12:00 noon:

- Transdermal delivery
 - Advantages
 - Limitations
 - Technologies
 - Iontophoresis
 - Sonophoresis

1:00–2:30 p.m.:

- Chemical skin permeation enhancers
- Vesicular skin permeation enhancers
- Others
- Effect of age on skin penetration
 - Neonatal skin
 - Elderly skin

3:00–4:00 p.m.:

- Workshop

Course Director

Dr. Nava Dayan earned her Ph.D. in Pharmaceutics from the Hebrew University in Jerusalem specializing in skin delivery. She is an Associate Adjunct Professor in the Ernest Mario School of Pharmacy at Rutgers University. During her 20 years of experience she has specialized in a variety of areas related to skin treatment:

- The research and understanding of the interaction between topically applied compounds and the skin
- Findings in skin biochemistry and especially the upper layer of the skin- the stratum corneum
- Delivery of active compounds into and through the skin and the development of delivery systems to facilitate transport, improve bio-availability and reduce toxicity
- Design and development of topically applied formulations
- Design of clinical studies to substantiate market claims and to assure safety
- Academic teaching and lecturing
- Industrial experience in both development of active compounds, delivery systems and finished formulations
- Skin absorption studies in vivo and in vitro for safety/ efficacy assessment
- In vitro methodologies for safety assessment of topically applied compounds

Dr. Dayan has received numerous awards of excellence for various papers she has authored. She is the author and co-author of more than 80 publications. Dr. Dayan is a member of the Dermatopharmaceutics Focus Group, the Abstract Review Committee for the American Association of Pharmaceutical Scientists (AAPS) and the Consumer Products Group of the International Controlled Release Society (CRS). She is also part of the advisory board of the NY Chapter of the Society of Cosmetic Chemists, CAAT at John Hopkins University and Health Beauty America Expo. Dr. Dayan chairs the Annual Cosmeceuticals Summit Symposium. She teaches at Rutgers University, and is the Director of several public and online courses for the Center for Professional Advancement.

Course Location

This course will be held in the **Hyatt Regency** located in **New Brunswick, New Jersey**. A limited block of rooms in the hotel will be held for our registrants until four weeks before the course. Participants must, however, make their own reservations; the cost of hotel accommodation is not included in the course fee. Hotel information will be included with your acceptance. To receive **CfPA's** rate and room block, be sure to mention that you will be attending one of our courses. For reservations call 800.233.1234; outside U.S. call 732.873.1234.

www.cfpa.com

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Client Site

Training at your site and at your convenience. For further information, please contact **Client Site** Programs: Direct Dial (USA) +1/732.238.1600, ext. 4549; or fax +1/732.238.9113; or **E-mail** clientsite@cfpa.com.

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