

# Dermal Toxicology Specialty Section

## Executive Council

### President

David W. Hobson, Ph.D., DABT  
H&H Scientific Services, LLP  
[Dave@HH-LLP.net](mailto:Dave@HH-LLP.net)

### President Elect

Carol S. Auletta, MBA, DABT, RAC  
Huntingdon Life Sciences  
[aulettac@princeton.huntingdon.com](mailto:aulettac@princeton.huntingdon.com)

### Vice-President

George L. DeGeorge, PhD, DABT  
MB Research Laboratories  
[degeorge@mbresearch.com](mailto:degeorge@mbresearch.com)

### Secretary-Treasurer

AnneMarie Api, PhD  
Research Institute for Fragrance Materials, Inc.  
[amapi@rifm.org](mailto:amapi@rifm.org)

### Past President

James N. McDougal, Ph.D., ATS  
Wright State University  
[james.mcdougal@wright.edu](mailto:james.mcdougal@wright.edu)

### Councilors

#### Senior Councilor

Jeffrey J. Yourick, PhD, DABT  
U.S. FDA  
[jeffrey.yourick@fda.hhs.gov](mailto:jeffrey.yourick@fda.hhs.gov)

#### Junior Councilor

Robert E. Osterberg, RPh, PhD, ATS  
[pharmdrugs@comcast.net](mailto:pharmdrugs@comcast.net)

#### Postdoctoral Representative

Adrienne T. Black, MS, ASCP  
Rutgers University  
[atblack@eden.rutgers.edu](mailto:atblack@eden.rutgers.edu)

#### Student Representative

Thomas J. Kannanayakal, MSc  
Wright State University  
[kannanayakal.2@wright.edu](mailto:kannanayakal.2@wright.edu)



## President's Message

### DTSS President's Message



The opportunity to serve as your DTSS President for the past year has been both an honor and a pleasure for me. Our section has so many wonderful and talented scientists, is quite dynamic and active in many facets of dermal toxicology internationally and is very well received by the rest of the Society of Toxicology in general. All of our officers have worked very diligently and spent a significant amount of time coordinating activities this year such that the DTSS had a strong and visible presence in the Society all year and made significant contributions to the 47<sup>th</sup> annual SOT meeting.

DTSS and its members presented two complete workshops, supported other workshops and symposia as well as participated in several poster/discussion sessions this year and even though the meeting was held in far off Seattle for many of us, the attendance was excellent. We even had two new awards sponsors express their support for our section as well as a showing of continued support from our previous awards sponsor.

Since the time for providing draft proposals for next year's annual meeting is now becoming short (**April 30<sup>th</sup> deadline**), I encourage all of you to consider developing a workshop, symposium or CE course proposal and get it sent in to SOT so that the DTSS will be strong at next year's annual meeting and will have the opportunity to review and sponsor your proposal as soon as possible. For more details, please see go to the 2009 "Proposal Central" location of the SOT website: <http://sot2009.abstractcentral.com/> or contact Carol Auletta or myself.

Carol Auletta (Huntingdon Life Sciences) will become your new President and our newly elected officers will take office on 1 May 2008. George DeGeorge (MB Research Laboratories) will move to President-Elect and Bill Reifenrath (Stratacor Inc) was elected Vice-President this year, replacing Anne-Marie Api (Research Institute for Fragrance Materials), who has done an outstanding job over the past two years as our Secretary/Treasurer will be Carol Sabourin (Battelle). Bob Osterberg (Aclairo PDG Inc) will become our Senior Councilor and work to fill the big shoes that Jeff Yourick (FDA) created during his outstanding service to the DTSS this year and Jens Mortensen (LEO Pharma) will be our newly-elected Councilor working with Bob and the rest of the DTSS officers. Congratulations and welcome to all the new officers and a very heartfelt thanks to all those who consented to run for DTSS election this year, regardless of outcome... it is not a trivial thing to offer your service when we all have very busy lives and your support is very much needed and much appreciated.

Thomas Kannanayakal (Wright State University) will be leaving this year as our Student Representative as will Adrienne Black (Church and Dwight Co., Inc.), who has been our Post Doctoral Representative. Both have worked very hard for the DTSS and I am looking forward to working with them as full members of SOT soon and continuing their association with the DTSS as they further develop their careers in toxicology.

Finally, even though I will soon be your Past-President, I encourage you all to support Carol Auletta as your new incoming President as I intend to do and work to continue making the DTSS a strong and viable specialty section through your support and continued participation.

Dave Hobson  
DTSS President

### DTSS Paper of the Year Award



DTSS selected a Best Paper Award for 2007 from nominations submitted by Specialty Section members. At least one of the authors had to be a member of the DTSS. This is a relatively new award for our specialty section and represents our second annual award for Best Paper. This year's award was sponsored by Sinclair Research Center. The Best Paper Award this year went to: "Quantification of Chemical Peptide Reactivity for Screening Contact Allergens: A Classification Tree Model Approach" by G. Frank Gerberick, Jeffrey D. Vassallo, Leslie M. Foertsch, Brad B. Price, Joel G. Chaney, and Jean-

Pierre Lepoittevin, *Tox. Sci.* 97(2), 417-427, 2007. There are a variety of characteristics that determine whether or not a chemical can function as a contact sensitizer (or allergen) including the ability to penetrate into the skin, react with protein, and be recognized as antigenic by immune cells. The correlation of protein reactivity with skin sensitization potential is well established. Since protein reactivity is a key step in the induction of allergic contact dermatitis, it was hypothesized that an *in vitro* method could be developed to screen the sensitization potential of new chemicals based on reactivity. This is the basis for the assay described in the paper.

Jeffrey J. Yourick  
Senior Councilor

### Student Awards



The DTSS gave two awards for the "Graduate Student Best Abstract" presented at the 2008 Society of Toxicology Annual meeting in Seattle:

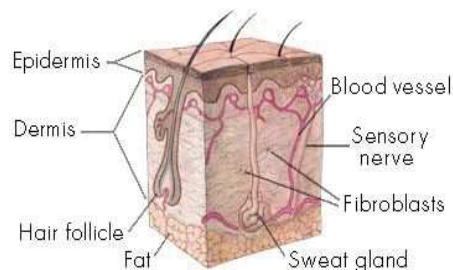
Dae Joon Kim and John DiGiovanni,  
Department of Carcinogenesis, The

University of Texas, MD Anderson Medical Center, Science Park-Research Division, Smithville, Texas for "Constitutive activation and targeted disruption of signal transducer and activator of transcription 3 (Stat 3) in mouse epidermis reveal its critical role in UVB-induced skin carcinogenesis." SOT abstract # 561. The award was sponsored by the Sinclair Research Center.

Michael G. Borland<sup>1</sup>, E.E. Girroir<sup>1</sup>, A.N. Billin<sup>2</sup>, T.M. Wilson<sup>2</sup>, and J.M. Peters<sup>1</sup> <sup>1</sup> Department Vet. and Biomed. Sci., Penn State Univ., University Park, PA.

<sup>2</sup> Nuclear Receptor Discovery Research, Glaxo SmithKline, Research Triangle Park, NC. for "Ligand activation of PPAR $\beta/\delta$  inhibits proliferation of human HaCaT keratinocytes". SOT abstract # 1549. The award was presented by Stratacor and Port Royal Research.

Robert E. Osterberg  
Councilor



## Postdoc Assembly



The Postdoctoral Assembly (PDA) was recently formed to provide an organization devoted to both highlight the contributions as well as address the needs of postdoctoral fellows within SOT. A major goal was realized this past year with the formation of the Postdoctoral membership; thus, postdocs will no longer be classified as student members of SOT. A primary purpose of the PDA is to increase postdoctoral involvement in SOT. Accordingly, postdoc representatives serve on the CRAD and Liaison committees, the PDA sponsored research seminars and career symposia at the annual meeting and a detailed website is available (accessed from [www.toxicology.org](http://www.toxicology.org)). The PDA also sponsored a Best Postdoctoral publication award to promote the research conducted by postdocs and to increase their visibility within SOT. This past year three awards were given out, one of which was a paper authored by several DTSS members (Gray, J.P. et al. 2007. *J Biol. Sci.* 282: 7939-7949). Future plans include increasing postdoctoral representation throughout SOT by having representatives for every specialty section and regional chapter, continue to sponsor seminars and symposia at the annual meeting and to expand the PDA website.

Adrienne Black  
DTSS Student Representative

the students who entered a raffle by visiting DTSS poster at the mixer. Jill Harvilchuck was the winner of the raffle. Sinclair Research Center sponsored toy minipigs as giveaways for students interested in DTSS at the mixer. Vikrant Vijay and Thomas Kannanayakal, student members of DTSS, served as chairpersons of the poster session "Skin Penetration and Toxicity" at the annual meeting.

Also, I am delighted to bring to your notice about a graduate student award from Society for Risk Analysis. The following information was provided by Dr. Patty Toccalino: "The Society for Risk Analysis (SRA) Dose-Response Specialty Group is sponsoring a student award for graduate-student research. The research may be on any topic broadly related to dose-response assessment applied to risk assessment. In addition to the peer recognition of the student's scientific accomplishment, the award includes a registration fee waiver to the SRA Annual Meeting in December, an engraved plaque, and a \$500 honorarium. **All student abstracts and application forms must be submitted by May 24.**

More information about the award and how to apply is posted at <http://www.sra.org/drsg/DRSG Student Award 2008.pdf>."

Good luck!  
Thomas Kannanayakal  
DTSS Student Representative

## Student Activities



To increase the student membership in DTSS, a proposal has been made to contact student members who conduct research in the field of dermal toxicology, encouraging them joining the specialty section. Students who have used abstract key words related to the study of dermal toxicology will be invited to join the specialty section. This targeted approach of contacting students to increase student membership proposed by the DTSS student representative was appreciated by SOT headquarters. A suggestion to increase web access by the prospective student members to the student officers has been accepted by the SOT Student Advisory Council. The prospective student members will be able to contact student officers to learn more about the benefits of specialty section from student's perspective without having to login to the website. A poster describing DTSS and the benefits to students joining the specialty section was displayed at the Student PostDoc mixer at the annual meeting on March 16, 2008. MB Research Laboratories sponsored a prize of an iPod nano for

## Program Committee



### Program Committee

The 2008 SOT meeting has come and gone and our DTSS-sponsored programs were a HUGE success! Congratulations to all who presented and thanks to all of our members and colleagues who participated. For those of you unable to attend, these are the programs you missed:

- Dermal Toxicological Assessment of Nanomaterials and Nanodevices
- LLNA: False Positives, False Negatives and Alternative Endpoints
- Safe Approaches to Topical Product Development
- Minipigs as an Alternative Non-Rodent Species in Toxicology and Safety Studies

Now the deadline for program proposals for 2009 is looming (April 30). We have some proposals in preparation and a few in the possibilities stage. These include a continuing education course organized by Jim Riviere and Ed Bissinger, a workshop on "Non-

animal alternatives in skin toxicology: challenges and opportunities”, organized by Cindy Ryan and David Basketter, and possible proposals on Phototoxicity (Bob Osterberg), Penetration of Nanomaterials (Dave Hobson) and LLNA Do’s and Don’ts (George DeGeorge).

If you are interested in submitting a program proposal, these are the guidelines.

#### **2009 Annual Meeting Proposal Deadline—April 30**

The thematic approach will carry forward for the 2009 Annual Meeting and will highlight the following themes for proposal submissions—

**Biomarkers, Epigenetics, Inflammation and Disease, and Neurodegenerative Disease.** Due to its timeliness, **Nanotechnology** will again be highlighted for this meeting.

#### **New Submission Process**

The SOT Program and Continuing Education Committees place great value on the contributions of Regional Chapters, Specialty Sections, Special Interest Groups (SS/SIGs), and SOT Committees in the preparation of high-quality proposals for sessions at the SOT Annual Meetings. For this reason, it should be noted that this year endorsements sought for proposals will have to be made directly to these groups prior to submission.

During the on-line submission process, all proposal submitters will be prompted to confirm that they have worked with the intended groups identified as session Sponsors or Endorsers for proposals. The primary endorsement sought for any proposal will be known and highlighted as the Sponsor for the proposal. All secondary endorsements will continue to be listed in the Annual Meeting publications as is presently done. Access to the proposal site for the review groups will begin April 15th, at which time the reviewer should log in to confirm that proposals submitted reflect that Sponsor or Endorsers input. The goal of this new emphasis ensures that all Annual Meeting proposals are of the highest scientific quality and maintain a balanced perspective on controversial issues.

We appreciate your support of this new process. These changes will increase the ability of the SS/SIGs to participate in the development of high-quality sessions in their area of interest and will be of great benefit to the scientific quality of the SOT Annual Meetings.

Session types are described below and more information is posted on-line on the SOT Web site under Forms and Applications.

#### **Continuing Education**

These proposals should emphasize quality presentations of generally accepted, state-of-the-art knowledge in toxicology. Courses are scheduled into a one-hour sunrise slot or a four-hour slot, either

morning or afternoon. The four-hour courses have a chairperson and 3–4 speakers. Course levels are either basic, for a broad overview, or advanced, for individuals with previous knowledge of the subject.

#### **Scientific Sessions**

**Symposia**—Proposals for symposia should feature "cutting edge" science; new areas, concepts, or data in the forefront of toxicology. The session is three hours or less, with two chairpersons and 4–5 speakers.

**Workshops**—Proposals for workshops should be informal, interactive presentations that highlight state-of-the-art knowledge in toxicology with an emphasis on discussion. These sessions will last three hours or less, be chaired by at least two chairpersons, and have between 4–5 speakers.

**Roundtables**—Controversial topics are the basis of roundtable proposals. Each roundtable lasts about one and one-half hour. These are moderated discussions, with 2–4 speakers providing a 3–5 minute statement and the balance of the time for questions and discussion.

**Historical Highlights**—Proposals for a historical highlights session should be a review of a historical body of science that has impacted the field of toxicology, including the work of multiple laboratories and the resulting advancement of the science. The session should be about 90 minutes and can include a single or multiple speakers as appropriate.

**Informational Sessions**—These sessions are not based on the outcome of scientific research. These sessions should present the latest science in toxicology, or other learning opportunities that address the professional interests and needs of toxicologists in the areas of Career Development, General Information, and Planned Scientific Activities.

The informational session should last 80 minutes or less, or 165 minutes or less. The proposal submission must clearly indicate 80 or 165 minutes of requested presentation time. For sessions of 165 minutes, the submission should also provide a clear justification explaining why the extended time is warranted.

#### **Innovations in Applied Toxicology and Toxicological Sciences**

—A limited number of symposia and/or workshops are designated Innovations in Toxicological Sciences (ITS) or Innovations in Applied Toxicology (IAT). ITS will introduce new technologies or scientific disciplines to the membership, and IAT will introduce innovative approaches in applied research.

If you have ideas about these and wish to put a program proposal together, please let us know how we can help you.

Looking forward to a deluge of new ideas and an exciting 2008-2009 term . . .

Carol Auletta  
DTSS President-Elect and Program Committee Chair

**Communications Committee**



The communications committee has the duties of assembling this newsletter and keeping the Dermal Specialty Section website up to date. Check out our website and newsletters at:

<http://www.toxicology.org/ISOT/SS/dtss/index.html>

We are always looking for information to share with members, such as meetings, announcements, job openings, postdoctoral positions, etc. that can be posted on the website or included in the newsletter. In this issue, we have included papers published in 2007 by DTSS members. This is a useful way to keep members up-to-date; however, it is very time-consuming to search PubMed for ~150 members. Please volunteer so we can add member publications to the website or future newsletters. PubMed-savvy members – please contact me.

The DTSS executive committee discussed the possible emergence of a new, related specialty section on Ocular Toxicology. The idea was put forth that our officers approach the group sponsoring the new Ocular Toxicology section and discuss the possibility of merging into our section, which would adopt a new name. The Executive committee is interested in hearing the opinions of the membership on this idea, and as our emissaries report back to the DTSS from the fledgling Ocular Tox group, we will keep you posted.

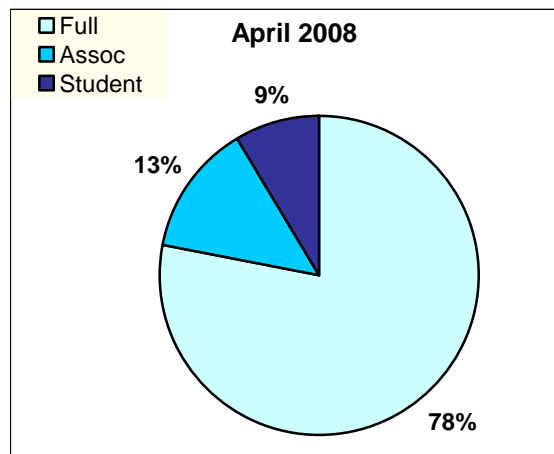
Each year the VP steps up and then down as Communication Committee chair and newsletter editor. We are looking for new members of the Communications Committee – someone to serve at least a 2-year term as Communication Committee Co-Chair and a few additional members to work with each year’s VP and Co-Chair on newsletters, website, and other noteworthy announcements and reports. Please contact me or Bill Reifenrath, VP-elect.

George DeGeorge, DTSS VP  
[degeorge@mbresearch.com](mailto:degeorge@mbresearch.com)

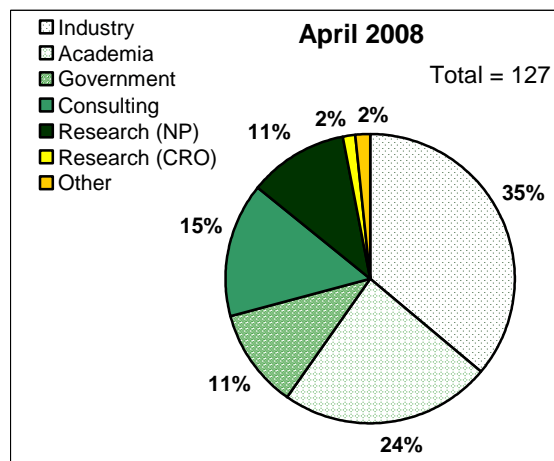
Bill Reifenrath, VP-elect,  
[wmreifenrath@aol.com](mailto:wmreifenrath@aol.com)

**Membership Report:**

**DTSS Membership by Membership Category**



**DTSS Membership by Organization Type**



Last year at this time, the DTSS had 121 members. The total rose to 128 members at the end of July (when SOT takes the official tally) and ended the year at 136 members. We are on track for a 5% increase in membership, but we can do better with your help.

Please check the list of “missing” members on page 7 – if you know anyone on the list, urge them to renew their Dermal Section membership.

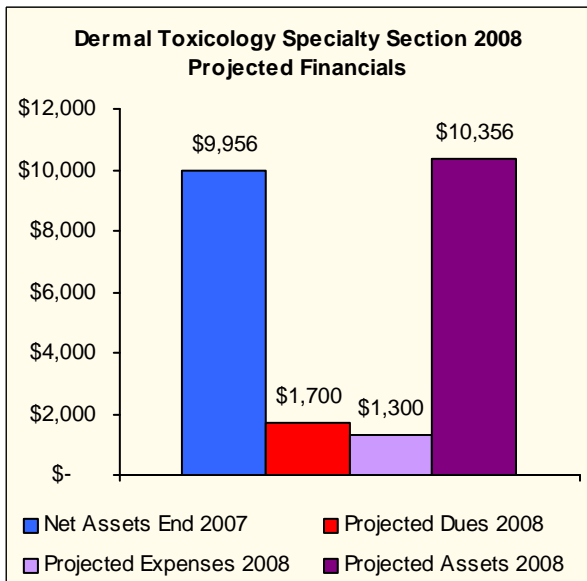
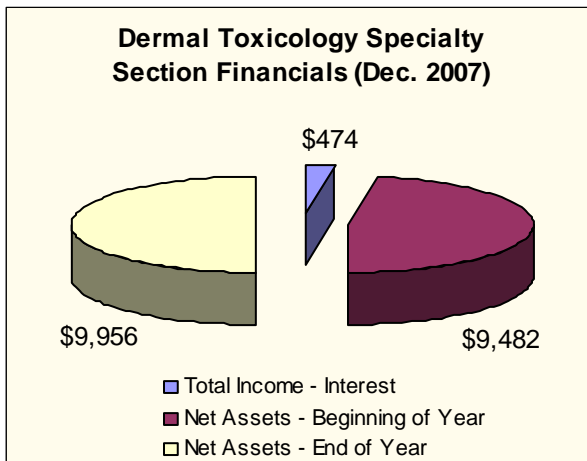
And do you know any students who are not yet members of SOT or DTSS? Remember, students can join their first Specialty Section at no cost, and there are many other advantages to student membership.

Submitted by  
George DeGeorge, DTSS VP

**Treasurer's Report**



Based on the financial summary as of December 31, 2007 for the fiscal year July 2007 – June 2008, the Dermal Toxicology Subspecialty Section (DTSS) has net assets of \$9,956. Our income consisted of interest equally \$474. The net assets from the beginning of the year were \$9,482. Our dues have not been posted as of December 2007, but based on 2007 dues contributions; we can anticipate approximately \$1,700 from dues. No expenses have been incurred (as of December 31, 2007). It is anticipated that our expenses will be approximately \$1,300.



Anne Marie Api  
DTSS Treasurer

**Announcements**

**Meetings, Near . . .**

July 30 - August 3, 2008 –  
American Academy of Dermatology, Summer Meeting 2008, Chicago, IL

March 6-10, 2009 –  
American Academy of Dermatology, 67<sup>th</sup> Annual Meeting, San Francisco, CA

**. . . and Far**

November 19-22, 2008 –  
6<sup>th</sup> World Congress of Veterinary Dermatology, Hong Kong

May 6-9, 2009 -  
Society for Investigative Dermatology, 69th Annual Meeting, Montreal, Canada

September 9-12, 2009 –  
European Society for Dermatological Research, 39th Annual Meeting, Budapest, Hungary

**Cutaneous and Ocular Toxicology Journal**

SOT 2008 is a fond memory and, as with past SOT meetings, the membership in the Dermal Specialty Section of SOT had a number of posters and potential papers following the meeting. As the editor of **Cutaneous and Ocular Toxicology**, I would like to invite you to submit your papers to **Cutaneous and Ocular Toxicology** at [awallacehayes@comcast.net](mailto:awallacehayes@comcast.net). Please go to the journal website (<http://www.informaworld.com/smpp/title~content=t713597280>) for *Instructions for Authors* and for a list of editorial board members (the board is well populated by members of the Dermal Specialty Section).

I am always interested in finding new individuals that would like to review papers for the journal. Reviewing papers is a great way to develop your own writing skills. Contact me at [awallacehayes@comcast.net](mailto:awallacehayes@comcast.net) if you are interested in reviewing papers for the journal.

Have a great meeting but don't forget to send in those papers! ([awallacehayes@comcast.net](mailto:awallacehayes@comcast.net)).

A. Wallace Hayes

**Did You Remember to Renew Your Dermal Specialty Section Membership?**

Adam-Rodwell, Gabriela	Eppler, Angela R.	Pasquinnelli, Melissa A.
Ayala Fierro, Felix	Gopee, Neera V.	Plotzke, Kathleen P.
Azri-Meehan, Shana	Grzemeski, Felicity A.	Rauma, Matias
Blomeke, Brunhilde M. M.	Hope, Esther F.	Ryman-Rasmussen, Jessica P.
Brand, Rhonda M.	Howard, Paul C.	Sailstad, Denise M.
Casterton, Phillip L.	Johanson, Gunnar	Schwen, Richard J.
Datta, Kaushik	Kaminski, Michael D., Jr.	Serbinova, Elena A.
Del Valle, Pedro L.	Kubaszky, Raluca E.	Smith, Benjamin P. C.
Dellarco, Michael	McGowan, Claude	Xia, Xin-Rui
Diegel, Kelly L.	Munson, Albert E.	Zoetis, Tracey

**2007 Publications by Members of DTSS**

Aeby P, **Basketter D**, Diembeck W, Eschrich D, **Gerberick F**, Itagaki H, Kimber I, Le Varlet B, Manou I, Paye M, Rousset F, Rowland J, Sakaguchi H. Dendritic cell research projects. ALTEX. 2006;23 Suppl:226-8. PMID: 17492184

Aleksic M, Thain E, Gutsell SJ, Pease CK, **Basketter DA**. The role of non-covalent protein binding in skin sensitisation potency of chemicals. Cutan Ocul Toxicol. 2007;26(2):161-9. PMID: 17612982

Aleksic M, Pease CK, **Basketter DA**, Panico M, Morris HR, Dell A. Investigating protein haptentation mechanisms of skin sensitizers using human serum albumin as a model protein. Toxicol In Vitro. 2007 Jun;21(4):723-33. PMID: 17317089

Antonopoulos C, Cumberbatch M, Mee JB, **Dearman RJ**, Wei XQ, Liew FY, Kimber I, Groves RW. IL-18 is a key proximal mediator of contact hypersensitivity and allergen-induced Langerhans cell migration in murine epidermis. J Leukoc Biol. 2008 Feb;83(2):361-7. PMID: 17984289

**Api AM**, et al., 70 papers in Food Chem Toxicol. 2007;45 -- Fragrance material review on 70 substances.

**Api AM**, Bredbenner A, McGowen M, Niemiera D, Parker L, Renskers K, Selim S, Sgaramella R, Signorelli R, Tedrow S, Troy W. Skin contact transfer of three fragrance residues from candles to human hands. Regul Toxicol Pharmacol. 2007 Aug;48(3):279-83. PMID: 17560701

**Api AM**, Lapczynski A, Isola DA, Glenn Sipes I. In vitro penetration and subchronic toxicity of alpha-methyl-1,3-benzodioxole-5-propionaldehyde. Food Chem Toxicol. 2007 May;45(5):702-7. PMID: 17316944

Atrux-Tallau N, Pirot F, Falson F, Roberts MS, **Maibach HI**. Qualitative and quantitative comparison of heat separated epidermis and dermatomed skin in percutaneous absorption studies. Arch Dermatol Res. 2007 Dec;299(10):507-11. PMID: 17901965

**Basketter D**, Maxwell G. In vitro approaches to the identification and characterization of skin sensitizers. Cutan Ocul Toxicol. 2007;26(4):359-73. PMID: 18058309

**Basketter DA**, **Gerberick GF**, **Kimber I**. The local lymph node assay: current position in the regulatory classification of skin sensitizing chemicals. Cutan Ocul Toxicol. 2007;26(4):293-301. PMID: 18058304

**Basketter DA**, Kan-King-Yu D, Dierkes P, Jowsey IR. Does irritation potency contribute to the skin sensitization potency of contact allergens? Cutan Ocul Toxicol. 2007;26(4):279-86. PMID: 18058302

**Basketter DA**, **Gerberick F**, **Kimber I**. The local lymph node assay and the assessment of relative potency: status of validation. Contact Dermatitis. 2007 Aug;57(2):70-5. PMID: 17627643

**Basketter D**, Pease C, Kasting G, Kimber I, Casati S, Cronin M, Diembeck W, **Gerberick F**, Hadgraft J, Hartung T, Marty JP, Nikolaidis E, Patlewicz G, Roberts D, Roggen E, Rovida C, van de Sandt J. Skin sensitisation and epidermal disposition: the relevance of epidermal disposition for sensitisation hazard identification and risk assessment. The report and recommendations of ECVAM workshop 59. Altern Lab Anim. 2007 Mar;35(1):137-54. PMID: 17411362

- Basketter DA**, Sanders D, Jowsey IR. The skin sensitization potential of resorcinol: experience with the local lymph node assay. *Contact Dermatitis*. 2007 Apr;56(4):196-200. PMID: 17343618
- Basketter DA**, Kimber I. Information derived from sensitization test methods: test sensitivity, false positives and false negatives. *Contact Dermatitis*. 2007 Jan;56(1):1-4. PMID: 17177701
- Baynes RE**, Xia XR, Barlow BM, Riviere JE. Partitioning behavior of aromatic components in jet fuel into diverse membrane-coated fibers. *J Toxicol Environ Health A*. 2007 Nov;70(22):1879-87. PMID: 17966059
- Betts CJ, Dearman RJ, Kimber I, Ryan CA, Gerberick GF, Lalko J, Api AM. B220 analysis with the local lymph node assay: proposal for a more flexible prediction model. *J Appl Toxicol*. 2007 Sep-Oct;27(5):506-10. PMID: 17541942
- Betts CJ, Beresford L, Dearman RJ, Lalko J, Api AP, Kimber I. The use of ethanol:diethylphthalate as a vehicle for the local lymph node assay. *Contact Dermatitis*. 2007 Feb;56(2):70-5. PMID: 17244073
- Bissett DL, Farmer T, McPhail S, Reichling T, Tiesman JP, Juhlin KD, Hurley GJ, Robinson MK. Genomic expression changes induced by topical N-acetyl glucosamine in skin equivalent cultures in vitro. *J Cosmet Dermatol*. 2007 Dec;6(4):232-8. PMID: 18047607
- Brand RM**, Jendrzewski JL, Charron AR. Potential mechanisms by which a single drink of alcohol can increase transdermal absorption of topically applied chemicals. *Toxicology*. 2007 Jun 25;235(3):141-9. PMID: 17467136
- Brand RM**, Charron AR, Sandler VL, Jendrzewski JL. Moisturizing lotions can increase transdermal absorption of the herbicide 2,4-dichlorophenoxyacetic acid across hairless mouse skin. *Cutan Ocul Toxicol*. 2007;26(1):15-23. PMID: 17464745
- Brand RM**, McMahon L, Jendrzewski JL, Charron AR. Transdermal absorption of the herbicide 2,4-dichlorophenoxyacetic acid is enhanced by both ethanol consumption and sunscreen application. *Food Chem Toxicol*. 2007 Jan;45(1):93-7. PMID: 17030379
- Corsini E**, Kimber I. Factors governing susceptibility to chemical allergy. *Toxicol Lett*. 2007 Feb 5;168(3):255-9. PMID: 17174044
- Dearman RJ**, Betts CJ, Farr C, McLaughlin J, Berdasco N, Wiench K, Kimber I. Comparative analysis of skin sensitization potency of acrylates (methyl acrylate, ethyl acrylate, butyl acrylate, and ethylhexyl acrylate) using the local lymph node assay. *Contact Dermatitis*. 2007 Oct;57(4):242-7. PMID: 17868217
- Dika E, Bardazzi F, Balestri R, Maibach HI. Environmental factors and psoriasis. *Curr Probl Dermatol*. 2007;35:118-35. PMID: 17641494
- Eppler AR**, Kraeling ME, Wickett RR, Bronaugh RL. Assessment of skin absorption and irritation potential of arachidonic acid and glyceryl arachidonate using in vitro diffusion cell techniques. *Food Chem Toxicol*. 2007 Nov;45(11):2109-17. PMID: 17602815
- Farage M, Elsner P, Maibach H. Influence of usage practices, ethnicity and climate on the skin compatibility of sanitary pads. *Arch Gynecol Obstet*. 2007 Jun;275(6):415-27. PMID: 17514373
- Farage MA, Miller KW, Berardesca E, Maibach HI. Incontinence in the aged: contact dermatitis and other cutaneous consequences. *Contact Dermatitis*. 2007 Oct;57(4):211-7. PMID: 17868212
- Farage MA, Miller KW, Elsner P, Maibach HI. Structural characteristics of the aging skin: a review. *Cutan Ocul Toxicol*. 2007;26(4):343-57. PMID: 18058308
- Farage MA, Maibach H. Cumulative skin irritation test of sanitary pads in sensitive skin and normal skin population. *Cutan Ocul Toxicol*. 2007;26(1):37-43. PMID: 17464747
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