

PASPCR

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Newsletter



Introduction...

by **Bill Oetting**

Plans for the 2005 International Pigment Cell Conference are going full speed ahead. The conference will be held at the Hyatt Regency Reston, in Reston, Virginia. Vince Hearing, the Organizer of the 19th IPCC, reports on the latest information for the meeting on page 4. This promises to be a great conference, filled with interesting scientific sessions and memorable times spent with friends and colleagues. You can get the most up-to-date conference news by going to the IPCC web site at **www.ipcc.info**. At the IPCC web site, on-line web site functions including abstract submission, early registration, submissions for travel stipend awards and hotel reservations. The deadline for abstract submission and travel stipend applications is May 1, 2005. The website also has information on the scientific program and social events. Start planning now to attend the 19th IPCC.

The *PASPCR Newsletter* is published quarterly and is intended to serve as a means of communication for the members of our Society. You are invited to contribute articles, or other information you feel will be of interest to members of the **PASPCR**. If you attend a scientific meeting and have heard results which you think will be of interest to the membership of the **PASPCR**, please write a few paragraphs summarizing what was presented and share it with us. Any information on upcoming meetings of interest will be added to the "Calendar

of Events". This is your newsletter, and we depend upon you to help us make sure it best serves the Society's needs. Contributions and comments can be sent to me, preferably by E-mail, to bill@lenti.med.umn.edu.

The **PASPCR** Web Site is the major, up-to-date source of current information for the **PASPCR** membership and for individuals who are interested in the **PASPCR**. The **PASPCR** Web Site has visits by individuals from all over the world and plays an important part in promoting the **PASPCR**. If there is additional information that you would like to see on the **PASPCR** Web site, or you would like to include information of past **PASPCR** activities, please let me know and I will add them.

The **IFPCS** Web Site can be found at:

<http://www.ifpcs.org>

The **PASPCR** Web Site can be found at:

<http://www.paspcr.org>

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The PanAmerican Society for Pigment Cell Research

C/O Dr. Raymond E. Boissy
Department of Dermatology
University of Cincinnati
231 Bethesda Avenue
Cincinnati, OH 45267-0592

Officers:

John Pawelek
President

Frank Meyskens
President-elect

Raymond E. Boissy
Secretary/Treasurer

Council Members:

Greg Barsh
Murray Brilliant
Gisella Erf
William Oetting
Seth Orlow
Bill Pavan

Manickam Sugumaran
Richard Swank
Giselle Thibaudeau

IFPCS Representative:

Zalfa Abdel-Malek
past-President PASPCR

Calendar of Events:

May 4-7, 2005 -- 66th Annual Meeting of the Society of Investigative Dermatology, to be held in America's Center, St. Louis, MO.
Web site: <http://www.sidnet.org/>

Sept 18-22, 2005 -- XIVth International Pigment Cell Conference (IPCC), to be held at the Hyatt Regency Reston, Reston, Virginia, USA.
Contact: Dr. Vince Hearing
E-mail: hearingv@nih.gov
Web site: www.ipcc.info

Sept 22-24, 2005 -- 35th Annual European Society of Dermatological Research, to be held at Tübingen, Germany.
Contact: office@esdr.org
Web site: www.esdr.ch

Sept 24-27, 2006 -- 13th meeting of the European Society for Pigment Cell Research, to be held in Barcelona, Spain.
Contact: Lluís Montoliu (Madrid, CNB-CSIC).
E-mail: espcr06@cnb.uam.es.
Web site: www.cnb.uam.es/~espcr06/

If you know of future meetings that you feel would be of interest to the PASPCR membership, please let us know.

The *PASPCR Newsletter* is published quarterly by the PanAmerican Society for Pigment Cell Research. All views are those of the authors. For further information or to submit articles, please contact members of the Publications Committee.

Publications Committee:

William S. Oetting, Ph.D.
Editor

University of Minnesota
Department of Medicine- Genetics
MMC 485
420 Delaware St. SE
Minneapolis, MN 55455
(612) 624-1139
bill@lenti.med.umn.edu

Manickam Sugumaran, Ph.D.

Univ of Massachusetts at Boston
Department of Biology
100 Marrissey Boulevard
Boston, MA 02125
(617) 287-6600
manickam.sugumaran@umb.edu

Richard T. Swank, Ph.D.

Roswell Park Cancer Institute
Department of Molecular & Cell Biology
Elm and Carlton Streets
Buffalo, NY 14263
(716) 845-3429
richard.swank@roswellpark.edu

Corporate Sponsors *by Raymond E. Boissy*

The PASPCR would like to acknowledge and thank our Corporate Sponsors; the list below reflects contributions over the past 2 years. Financial gifts from these sponsors have allowed our Society to increase benefits to the membership far out of proportion to the actual dues collected from members. Monies contributed by these sponsors have been used over the years to support various PASPCR functions including our Young Investigator Award program, meeting travel stipends, annual meeting expenses and this Newsletter.

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PASPCR Election Results *by Raymond E. Boissy*

Here are the results from the PASPCR election.

President Elect:

Frank Meyskens

New Council Members:

William Oetting

Bill Pavan

Giselle Thibaudeau

The PASPCR would like to acknowledge and thank the outgoing Council members for their service from 2002 to 2004. They are:

Bryan Fuller

Ruth Halaban

Brian Potterf

Thanks!



Dear PASPCR member,

This is my last address to you as President before my term expires at the end of 2004. I want to express to you that I have been honored and privileged to serve as your President. I pledge that I will continue with my efforts to support our society for many years to come. In the past three years, PASPCR rejuvenated itself by increasing its membership, and contributed to bringing our specialty to a higher scientific level that is more widely recognized and respected in the scientific community. We have continued with our annual scientific meetings, and the meetings of 2003 and 2004 were a great success due to the excellent scientific program and your enthusiastic participation. We also continued with our communication and interaction with the sister societies ESPCR and JSPCR at the International Federation of Pigment Cell Conference in 2002, and the annual International Federation of Pigment Cell Societies Council meetings.

PASPCR is now facing new challenges. There is an urgent need to recruit young scientists (graduate students, postdoctoral fellows and junior faculty members) to our society. This needs to be considered as a top priority, and can only be achieved by the efforts and encouragement of senior members. PASPCR has always been committed to support young scientists by providing them a friendly podium to present their research at our annual meetings, in addition to travel and young investigators awards. Importantly, our young scientists have benefited from meeting personally senior scientists that often serve as excellent role models. There is an ever-increasing number of competing scientific conferences, and many of us are members of other scientific societies. With the scarcity of travel

funds, we are faced with tough choices when it comes to attending scientific meetings. To me and my laboratory staff, the PASPCR meeting is our top choice. I hope you will always make it your priority as well, and consider PASPCR as your parent society.

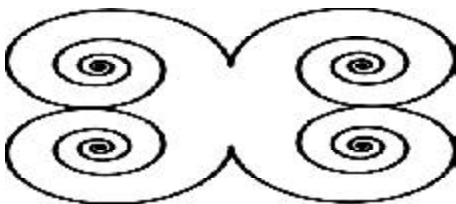
To our senior investigators, I wish to emphasize again the importance of assisting junior investigators in our society to obtain grant funding as well as publish in reputable journals. It is our responsibility to insure the continuity of our specialty and the growth of our society, and this can only be achieved by helping our young scientists stay in the field of pigment cell research. Mentoring should be an obligation that we enjoy and perform willingly.

To our junior investigators, I urge you to reach out for PASPCR officers and council members, contribute your ideas and opinions, seek ways to strengthen our society (by contributing to the newsletter and joining various PASPCR committees), and do not hesitate to ask for advice whenever needed. The friendly spirit of our society is what makes PASPCR unique.

My experience as PASPCR President had been most rewarding. I thank my fellow officers, Raymond Boissy, John Pawelek and Richard King, as well as the council members that I had the great pleasure to interact with. I look forward to a stronger PASPCR under the new leadership of John Pawelek and the new officers and council members. I end by wishing you all a wonderful holiday season, and a happy and successful New Year.

Sincerely,

Zalfa Abdel-Malek, Ph.D.



19th International Pigment Cell Conference (IPCC)

A Focus on Human Pigmentary Diseases

IPCC Update - December, 2004

The International and Local IPCC Program Committees have finished selecting all Invited Speakers for the 19th IPCC; the full list can be seen at [www.ipcc.info]. We have 9 Keynote Speakers and 22 Plenary Symposium speakers. The balance of lectures in the Plenary Symposia and Concurrent Sessions will be selected from the abstracts submitted, and up to 160 oral presentations will be selected in that manner. Abstracts will be rated blindly by the 3 co-chairs of each session so to maximize your chance of being selected for an oral presentation, plan and write your abstract well, paying particular attention to the topic of the intended Plenary Symposium or Concurrent Session. When you submit your abstract online, you will have the option to have your abstract considered first for one Plenary Symposia, then for one Concurrent Session; abstracts not selected for oral presentation will be scheduled for a poster presentation. The top 5 abstracts submitted will be presented in the Hot Topics Symposium. You may be listed as a coauthor on multiple abstracts but you may be the presenting author on only 1 abstract at this meeting.

Scientific Program - The expanded scientific program can now be accessed from the IPCC web site [www.ipcc.info]. It will not be further updated until after the abstract deadline and oral presentations have been added (approximately in mid-June). The names of all invited speakers and co-chairs of sessions along with tentative scheduled times for all scientific, political and social activities are listed.

Social Program - The social program is currently being designed but will include an Opening Reception on Sunday, Sept 18th and the Conference Tour/Awards Banquet at the J.F. Kennedy Center for the Performing Arts on Wednesday, Sept 21st. We are able to accommodate up to 500 people at the Conference Banquet; this should be sufficient (we hope) but if

registration exceeds that number, only the first 500 registrants will be provided a ticket to the Banquet.

Registration - will cover: attendance at all scientific sessions, a copy of the Program/Abstracts (to be published as a Supplement in Pigment Cell Research), continental breakfasts each day, attendance at social events as noted above (and as listed on the web site) and Satellite Symposia scheduled for Friday, Sept 23rd (currently Genetics & Developmental Biology, Melanoma, Photobiology, and Vitiligo sessions are scheduled). Please note that registration fees will be discounted from January 1st until May 1st after which they will be set at the standard rate, as noted on the web site. After August 24th, discounted hotel reservations at the Conference venue will be discontinued and a late registration penalty will be added. Students, junior faculty and retired scientists will be eligible for reduced registration fees. Please also note that active members of the 3 regional pigment cell societies are eligible for reduced registration fees; members should ensure that their dues for 2005 have been paid and that they are in good standing in their society before registering.

Hotel Reservations - special rates at the Conference hotel (the Hyatt Regency Reston) can be accessed online via the IPCC web site. Be sure to use the conference code to get the discounted rate (\$175), which is a 30-40% discount over their standard rate. The hotel will be fully booked by the time of the meeting so attendees are encouraged to reserve their room as soon as possible. The hotel is offering the discount rate to IPCC attendees for up to 3 days before or after the meeting for those who would like to arrive early or stay late for sightseeing, etc. The cost of the room is the same for 1 or 2 people, so sharing a room is an excellent option to save your budget. You can browse the hotel facility and its amenities at [reston.hyatt.com] and the surrounding pedestrian mall with many shops and restaurants at [www.restontowncenter.com].

Online Web Site Functions - Abstract submission, early Registration, Travel Stipend and Hotel reservations will open online as of January 1, 2005. The deadline for Abstract submission and Travel Stipend applications is May 1, 2005. Instructions for size and formatting of

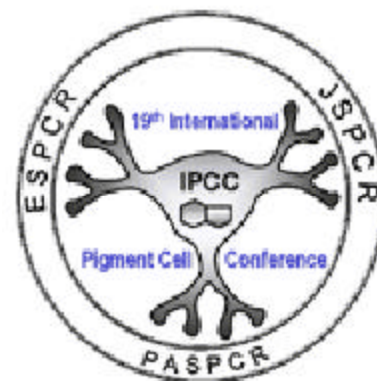
your abstract can be found on the web site, as can the requirements and procedures for students/junior faculty to apply for Travel Stipends. You will be notified of the disposition and scheduling of your abstract by the end of June and those awarded Travel Stipends will be notified at that time as well.

Important Dates:

- Jan 1, 2005 - Web site [www.ipcc.info] becomes fully functional for Abstract submission, early Registration, Travel Stipend application and Hotel reservations.
- May 1, 2005 - deadline for Abstract submission, Travel Stipend applications and early Registration.
- June 30, 2005 - notification of Abstract scheduling and decisions on Travel Stipends.
- Aug 24, 2005 - deadline for normal Registration and Hotel reservations.
- Sept 18-22, 2005 - the 19th International Pigment Cell Conference
- Sept 23, 2005 - Satellite Symposia

We look forward to welcoming you at this meeting, and please contact me if you have any questions about this Conference,

Vince Hearing



A message from the President of the International Federation of Pigment Cell Societies, to members of the ESPCR, JSPCR and PASPCR

<www.ifpcs.org>

Dear Friends and Colleagues,

Once again it is a pleasure to send seasonal greetings to all of you around the world, and profound wishes for a more peaceful and harmonious year in 2005 than in 2004. The constant news of wars and terrorism could give us a pessimistic view of how humanity is developing, but surely the great majority of us prefer peace and friendship, even if these people and their feelings do not feature much on the television. This message is to pass on to you some news from the IFPCS, the Federation that comprises the three Pigment-Cell Societies listed above. It seems a good thing that we have some international organizations like this, that aim to promote communication and excellent relations among those from many countries. This will be my last letter to you as IFPCS President, yet it seems hardly any time since the first in 2002. It has been a real pleasure to serve the scientific community in this way.

Our field of pigment-cell research seems to have been growing for some years, with ever more high-quality science and exciting progress. This year saw radical changes, with the official inauguration of two entire new scientific societies in the field. These are the Asian Society for Pigment Cell Research (ASPCR), and the Society for Melanoma Research (SMR). The ASPCR will hold its first meeting in New Delhi in February 2005 (<http://www.aspcr.org/>), while the SMR, a worldwide organization, held its second meeting in Phoenix, Arizona in November 2004. SMR: <http://www.societymelanomaresearch.org/> It will meet next in Holland in 2006. Both societies have some informal links with the IFPCS, and these may develop further in the future. Among the IFPCS societies, regional meetings for 2004 were expertly organized for the ESPCR in Paris by Lionel Larue

and colleagues, for JSPCR in Kumamoto by Toshiro Kageshita, Tomomichi Ono and colleagues, and for the PASPCR in Newport Beach, California by Frank Meyskens and colleagues. Those attending all three meetings were treated to a combination of excellent science and pleasant social occasions (which can be at least as scientifically productive as the sessions). As usual, anyone unable to attend can find the abstracts published as supplements to recent issues of the journal *Pigment Cell Research*.

You can keep up with IFPCS events on the IFPCS web site (www.ifpcs.org), and many thanks as ever to Bill Oetting for maintaining that site. Next year, as most of you probably know, we have a major IFPCS event, namely the three-yearly IPCC (International Pigment Cell Congress), September 18-23, 2005, to be chaired by Vince Hearing in Reston, Virginia, USA, near Washington DC. All the member societies meet together at the IPCC, in place of their annual meetings. Please note the date. All of you are warmly invited to attend this important conference, the planning for which is now almost complete. You can find the superb scientific program at the web site, <ipcc.info>, where you can register starting from January 2005. Note the low registration rate for (paid-up) IFPCS society members, so this is an excellent time to join or rejoin your regional Society. In general I urge you to continue to support the Societies and the Federation by remaining a member and by encouraging colleagues to join. Without their members the Societies would not exist and none of these conferences would happen. What are the dues for? - they go to good causes like meetings and travel fellowships. SMR members will also attend the IPCC, with melanoma plenary sessions later in the IPCC, followed by a one-day melanoma workshop organized by the SMR.

Another notable event, due on January 1, 2005, is the change of Editor-in-Chief of the IFPCS journal *Pigment Cell Research*. We are enormously grateful to the outgoing editor Vince Hearing for his unflinching commitment and outstanding achievements for the

journal over the last five years. The Impact Factor has now risen for 5 successive years, leaping to over 2.9 for 2003, and the number of submitted articles has nearly doubled since 2000. The steady flow of excellent review papers, the increased numbers of colour pages and the rapid turnover of manuscripts are some more of the good reasons to submit work to *PCR*, and to recommend your library and your colleagues to subscribe to the journal. Your support is of great importance for its continued success, so please consider sending in a paper soon. That is the ideal way to support the journal and its new Editor-in-Chief, Dr Colin Goding, whom IFPCS welcomes and wishes him every success. He has already introduced a range of further ideas for the journal, including a new look for the cover and layout as from early 2005, and free online access to highly-cited reviews. See <www.blackwellpublishing.com/pcr>. We continue to be indebted to *PCR*'s generous corporate sponsors: Johnson & Johnson, L'Oréal, Shiseido and Unilever.

The IFPCS Special Interest Groups or SIGs have had another good year. All are welcome to join these interest groups by contacting the appropriate chair - see <www.ifpcs.org>. The IFPCS Pigment Cell Development Group chaired by Bill Pavan held a successful workshop at the NIH in April 2004, and provisionally plans another one to incorporate Genetics as well as Development, at the 2005 IPCC. The Vitiligo group has been re-formed under its new chairs Alain Taïeb and Mauro Picardo, and will also organize an IPCC satellite meeting. This seems a timely development, with the growing interest in this topic. The Melanoma interest group under Meenhard Herlyn has of course grown into a full society, the SMR, so it no longer exists as a SIG. If anyone feels there is scope for a new interest group in another field of pigment cell research, please do not hesitate to contact me (dbennett@sghms.ac.uk). For that matter please contact me with any ideas or thoughts for the IFPCS.

In conclusion, thanks to everyone for their continued enthusiasm for the field of pigment-cell and melanoma research, and for the Societies. A special welcome to those researchers who are new to the topic; no doubt you too will soon fall in love with the melanocyte as an outstanding model system, and will come to appreciate the remarkable level of friendliness and co-operation that prevails in this research field. And best of luck to the new IFPCS President, whoever it is, who will be writing this message in another year's time.

Best wishes to everyone for success and happiness in 2005.

Dot Bennett

President, IFPCS

New Members of the PASPCR by *Raymond E. Boissy*

The PASPCR would like to welcome these new members to the society.

Elizabeth A. Grimm - Department of Experimental Therapeutics, M D Anderson Concer Center, Houston, TX .

Yung Jeon Kim - Department of Dermatology - Ajou University School of Medicine – Korea.

Louise Marie Schneider - Access Business Group, Ada, MI.

Welcome.

Research in the PASPCR Thomas J. Hornyak

Understanding the Activity of Signalling Pathways in Melanocyte Development, Melanocyte Differentiation, and Malignant Melanoma

The research efforts in my laboratory at the Dermatology Branch, Center for Cancer Research, National Cancer Institute, NIH are centered upon understanding the function of transcription factors and signal transduction pathways in regulating melanocyte development and differentiation, and understanding the determinants of melanocyte transformation that lead to malignant melanoma. My scientific interest in melanocytes began during dermatology residency, thinking about genes that were expressed early in melanocyte development during embryogenesis. At that point, the *dopachrome tautomerase (Dct)* gene had been identified as the melanogenic enzyme gene expressed the earliest in the mouse embryo. We began studying the *Dct* promoter region and using it to generate transgenic mice. These studies, which were begun at NYU Medical Center and continued in the Department of Dermatology at the Henry Ford Health System, demonstrated that a cellular factor, increased cell density, could regulate *Dct* expression in the mouse melanocyte cell line melan-a (Hornyak et al., *J Invest Dermatol.* 2000 Jul;115:106-12) and, in a detailed promoter analysis, that the melanocyte transcription factors *Mitf* and *Sox10* could synergistically activate expression of the *Dct* promoter (Jiao et al., *Pigment Cell Res.* 2004 Aug;17(4):352-62). *Dct*-driven *lacZ* expression in transgenic mice yielded strains of mice in which melanoblasts could be readily visualized in mid-gestational stage embryos. These mice were useful for analyzing melanocyte localization and proliferation *in vivo* in animals heterozygous and homozygous for the *Mitf^{mi}* mutation, leading to additional findings about how the *Mitf* transcription factor regulates cellular events during melanocyte development (Hornyak et al., *Mech Dev.* 2001 Mar;101(1-2):47-59).

We are currently working on two different projects that use murine models to explore human pigmentary phenomena. In one project, we are using mice with a

knockout mutation in the *Nf1* gene to gain insight into the determinants of pigmentary dysregulation in humans with type I neurofibromatosis, a human genetic syndrome caused by mutations in the human homolog *NF1*. Patients with type I neurofibromatosis develop distinct hyperpigmented macules and patches, termed café-au-lait macules and patches, on their skin. The *Nf1* gene product, neurofibromin, is a negative regulator of Ras. By studying the function of neurofibromin during melanocyte development and differentiation, we hope not only to understand the basis for hyperpigmented cutaneous lesions in patients, but also to learn more about how Ras regulates melanocyte development during embryogenesis and the expression of melanogenic genes. Another project involves the use of the *Mitf^{mi-wh}/+* mouse as a model for the human deafness-pigmentation syndromes Waardenburg and Tietz syndromes. We have collaborated with auditory scientists at the University of Michigan to characterize the hearing defect in these mice, and are studying the development and survival of otic melanocytes in this model to understand the pigmentary reason for their hearing loss.

At NIH, we have begun work that is more directly relevant to human melanoma. We remain interested in melanocyte development, but with a goal of developing an regulatable system to induce expression of genes that can stimulate or perturb signaling pathway components either early in melanocyte development or post-natally. We are interested in Ras- and Raf-dependent signaling in both melanocytes and melanoma cells, and have initiated a project to explore signaling similarities and differences between human melanoma cells harboring somatic mutations in either the *NRAS* or *BRAF* genes. We also have the opportunity here to obtain detailed dermoscopic images of pigmented lesions on patients with congenital melanocytic nevi, large numbers of acquired melanocytic nevi, and primary melanomas, and plan to initiate studies to culture and immortalize melanocytes from these highly clinically-annotated lesions to study the determinants of melanoma initiation and progression in humans.

Positions - Wanted and Available

Postings for **Positions Available** will be open to all individuals and institutions so long as the position is related to pigment cell research. Postings for **Positions Wanted** will be open only to members of the PanAmerican Society for Pigment Cell Research or its sister societies (JSPCR and ESPCR). Send postings to Bill Oetting at bill@lenti.med.umn.edu. Please provide an expiration date for any submitted postings. Final decisions will be made by the Publications Committee of the PASPCR.

Postdoctoral Scientist, Molecular and Cellular Biology

The Skin Biology Team of the Johnson & Johnson Skin Research Center is looking for a postdoctoral fellow. Candidates should have a Ph.D. in biological sciences with strong knowledge of molecular and cellular mechanisms, signal transduction, and cell-cell communication. Experience with molecular and cellular biology techniques, mammalian tissue culture and microscopy is required. Knowledge of skin biology and extracellular matrix is desired. The successful candidate is expected to establish independent, interdependent and innovative research programs within a multifunctional environment. Ability to work independently within a team environment, computer literacy and good communication skills are required. The successful candidate will work in a team involved in basic research and will interact with technology development teams.

Please forward your application, CV and references to viotsov@cpcus.jnj.com.

Johnson & Johnson is an equal opportunity employer committed to diversity.

Postdoctoral Position

Postdoctoral Position in the Chao Family Comprehensive Cancer Center, UC Irvine is immediately available to study the signal transduction pathways in human melanoma for regulation of cell proliferation, differentiation and apoptosis. Prior

knowledge or interest in redox metabolism would be useful.

A highly motivated individual with a background in molecular and cell biology is desired. All necessary training will be provided.

Please send your curriculum vitae, and contact information for at least two references to :

Frank Meyskens, M.D.

Professor of Medicine and Biological Chemistry
Director, Chao Family Comprehensive Cancer Center

Senior Associate Dean, Health Sciences College of Medicine

University of California Irvine Medical Center

101 The City Drive, Building 56, Room 216L

Orange, California 92868

Phone: (714) 456-6310

Fax: (714) 456-2240

Email: flmeyske@uci.edu

Postdoctoral Position

A postdoctoral position available in the laboratory of Dr. Andrew Aplin in the Center for Cell Biology and Cancer Research at Albany Medical College, NY. Research will focus on the critical signaling proteins involved in anchorage-dependent cell growth of melanocytes and that may be aberrantly regulated in melanoma cells. Further details and recent publications can be obtained at

<http://www.amc.edu/academic/research/CBCResearcher.cfm?ID=170>

Albany Medical College is located in the scenic Hudson River Valley, offering affordable housing, easy commutes and quick access to cultural (e.g., Saratoga, 45 min; Tanglewood, 1 hr), and outdoor activities (Adirondack State Park, 2 hr).

Candidates with a recent PhD or MD/PhD with a strong background in molecular and cellular biology are encouraged to apply. Excellent financial compensation and benefits are provided. Please

Positions - Wanted and Available (*continued*)

submit a resume and the names of references to:

Andrew E. Aplin, Ph.D.
Center for Cell Biology & Cancer Research
Albany Medical College,
47 New Scotland Avenue
Albany, NY 12208
Email: aplina@mail.amc.edu

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Department of Dermatology Chair

The University of California, Irvine, College of Medicine seeks candidates for the position of Chair, Department of Dermatology. The candidate must be an accomplished investigator, clinician and teacher, eligible for appointment at the level of associate professor or professor, with leadership skills appropriate for a major university department. Send CV, plus names and addresses of at least three references to:

Frank L. Meyskens, Jr., M.D.
Chair, Dermatology Search Committee
c/o Kit Scott
UCI College of Medicine
Dean's Office
246 Irvine Hall
Irvine, CA 92697-3950

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Postdoctoral Position

A Postdoctoral Position is available to study the role of UV radiation in the development of primary melanoma. The project will use transgenic and pigment cell mutant mice and cell cultures to study molecular mechanisms of melanoma initiation and progression. A strong background in pigment cell biology, cellular mechanisms of toxicology, carcinogenesis, or molecular biology is desired. Send

curriculum vitae, names of 3 references, and a brief summary of research interests to:

Faith M. Strickland, Ph.D.
Dermatology Research 4D49
Henry Ford Hospital
One Ford Place
Detroit, MI 48202
E-mail: FSTRICK1@hfhs.org
Phone: 313-874-3385
FAX: 313-874-3770.

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Postdoctoral Research Associate

Fox Chase Cancer Center.

Two NIH-funded postdoctoral positions are available to work on the development of neural crest-derived melanocytes and enteric neurons in mice. We are interested in the signals required for proper migration and differentiation of these lineages during mouse embryogenesis and use various genetic manipulation techniques and existing mutants for our studies. Fox Chase Cancer offers competitive salaries to its postdocs and was recently named one of the best places to work for Postdocs (<http://www.fccc.edu/news/2003/Best-Places-for-Postdocs-02-20-2003.html>). Candidates with a recent PhD or MD/PhD with strong background in molecular biology, genetics or developmental biology are encouraged to apply. Please submit CV, and names of 3 references to:

Dr. Myung K. Shin
Program in Cellular and Developmental
Biology
Fox Chase Cancer Center
Philadelphia, PA 19111, USA
Email: MK_Shin@fccc.edu

Bibliography:

The Bibliography published in this issue covers the period September, 2004 through November, 2004. If you notice a paper that was not detected by this search that should be included, please send it to us and we will include it in the next issue. By its very nature, assignment of a reference to a particular category is arbitrary and we urge you to read through all categories to make sure you don't miss any pertinent to your field.

MELANINS, MELANOGENS & MELANOGENESIS

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