



# PASPCR

## Newsletter

Volume 7 Number 3

September, 1999

### Introduction . . .

The **PASPCR Newsletter** is published quarterly and is intended to serve as a means of communication for the members of our Society. As such, we invite our membership to actively contribute to it. If you attend a scientific meeting and 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 up-coming meetings of interest will also be included. We also want to note any change of affiliation or address that you may have had to help us keep our membership list up-to-date. 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 Bill Oetting, preferably by Email, to [bill@lenti.med.umn.edu](mailto:bill@lenti.med.umn.edu).

The **PASPCR Web** page is the major, up-to-date source of current information for the **PASPCR** membership. The URL address to our home page is <http://www.cbc.umn.edu/paspcr>. This is a very active web-page, and as of August, the PASPCR home page has had over 14,000 'hits'. The **PASPCR Web** page contains information about the PASPCR including the goals, ByLaws and Rules of the Society, future meetings, past issues of the **PASPCR Newsletter** as well as links to other related sites including the InterPig DataBase, the International Federation of Pigment Cell Societies (**IFPCS**) and the regional Pigment Cell Societies from Europe and Japan. In addition, an updated **PASPCR** membership directory is available on the **PASPCR Web** page; please notify us if you wish any or all of your information to be modified or deleted on that site. The PASPCR home page also includes positions available and positions wanted. Postings for **Positions Available** is open to all individuals so long as the position is related to pigment cell research. Postings for **Positions Wanted** will be open only to members of the **PASPCR** or its sister societies (**JSPCR** and **ESPCR**). Please provide an expiration data for any submitted postings. If there is additional information that you wish to have added to this web page, please let us know. Send any comments and/or suggestions to the **PASPCR** WebMaster, Bill Oetting at [bill@lenti.med.umn.edu](mailto:bill@lenti.med.umn.edu).

**Note:** The IFPCS webpage has a new URL address at <http://www.cbc.umn.edu/ifpcs>.

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**Calendar of Events :**

**Oct 30 - Nov 3, 1999** XVII<sup>th</sup> International Pigment Cell Conference, to be held in Nagoya, Japan (contact: Dr. Shosuke Ito, Fujita Health University School of Health Sciences, Toyoake, Aichi 470-11, Japan; Phone: +81-562-93-2595; Fax: +81-562-93-4595; Email: sito@fujita-hu.ac.jp)

**Jun 25 - 28, 2000** IX<sup>th</sup> Annual Meeting of the PanAmerican Society for Pigment Cell Research, to be held in College Station, TX (contact: Dr. Lynn Lamoreux, Department of Veterinary Pathobiology, The Texas Veterinary Medical Center, Texas A & M University, College Station, TX 77843-4467; Phone: (409) 845-6084; FAX: (409) 845-9972; Email: llamoreux@vetmed.tamu.edu.

**Jun 25 - 28, 2001** X<sup>th</sup> Annual Meeting of the PanAmerican Society for Pigment Cell Research, to be held in Minneapolis, MN (contact: Dr. Richard A. King, Department Medicine, Box 485 Mayo, 420 Delaware St. S.E., Minneapolis, MN 55455; Phone: (612) 624-0144; FAX: (612) 624-6645; Email: king@mail.ahc.umn.edu.

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## Letter from the President

by Richard A. King

Dear Colleagues:

Summer has come to a close and we are ready to start another cycle of seasons. For those of us in pigment research, this means that we will soon have the opportunity to meet with our international colleagues in Nagoya, for the 17<sup>th</sup> International Pigment Cell Conference. Shosuke Ito will chair this meeting and the program looks terrific. Eight short and busy months after the IPCC will be the 9<sup>th</sup> PASPCR meeting in College Station, Texas, the first pigment cell conference of the new millennium. This should be a remarkable year for pigment cell research.

Now the challenge. I have often wondered if anyone actually reads letters from the President, and I suspect that I know the answer (based on my own behavior). If you do read this, then I hope that you can provide some feedback on your ideas about the PASPCR. I would like the society to be vibrant and to grow. We have a wonderful steady-state group of members who are vital to our continued activities. How can we involve more of the membership in activities? Investigators in many areas outside of our usual sphere are becoming increasingly interested in the melanocyte and pigment cell biology, including ophthalmologists, neurologists, cell biologists, and geneticists. We should have a way to reach out to this enlarging community of investigators and to have them active in the PASPCR and participate in our activities. I am asking you to email me your ideas for expanding the role of current members in functions of the society, and for bring new members into the society. I would also like to hear your ideas on current PASPCR activities and potential new activities in the future. Please contact me at [kingx002@tc.umn.edu](mailto:kingx002@tc.umn.edu). I will use this information with the Council to develop our plans for the next two years.

*Richard A. King*

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## Welcome to New Members

by James J Nordlund

We welcome the following new member to the **PASPCR** . . .  
Jeffrey A. Tosk, Ph.D.

If anyone is interested in joining our Society or wishes to sponsor a member, application forms can be obtained from Dr. James J. Nordlund at the PASPCR Secretary/Treasurer's office.

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## Corporate Sponsors

by James J Nordlund

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.

### ***GOLD Corporate Patrons***

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### ***SILVER Corporate Patrons***

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## Mouse Loci Table

by Bill Oetting

A table containing coat color genes described in mice and their human homologues has been created and placed on the IFPCS web page. The site is at <http://www.cbc.umn.edu/ifpcs/micemut.htm>. Only those genes that have been cloned (at present 27 genes) have been included. There are also links to the Jackson Laboratory Mouse Genome Informatics Web page and Online Mendelian Inheritance in Man (OMIM) for each entry. I hope that this table is of use to you. If you have any corrections or additions, please let me know at [bill@lenti.med.umn.edu](mailto:bill@lenti.med.umn.edu) and I will make the inclusions/changes. I would like to thank Drs. Dot Bennett and Vince Hearing for help in the table.

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## Book Review

by Lynn Lamoreux

### Confucius Lives Next Door

by T. R. Reid, Random House, 1999

This is a timely book that I suggest would interest all of our folks who will attend the International Meeting in Nagoya and also all of our folks who will not. T. R. Reid, a foreign correspondent, linguist, and vietnam war veteran, moved his family to Japan when he took over the Tokyo bureau of the Washington Post. His Japanese must be fluent. He in fact has written books in Japanese. So I assume he did not experience the instant illiteracy that is so unsettling to the rest of us, but that is all the better for our appreciation of his book. Mr. Reid reports the "Asian Miracle" from his deep personal and professional interest in the differences and the similarities of "East" and "West." He focuses our attention upon the "Asian" values, derived from centuries of Confucian heritage and points out their direct parallel with the values of most other cultures, including those related to Christian and pre-Christian writings upon which much of our "Western" culture is based.

Mr. Reid illuminates his points with examples drawn from discussions with his Japanese neighbors and experiences of his children attending Japanese schools. Thus, the book is a readable meld of Reid's personal experiences and his analytical consideration of value systems. Primarily he provides a factual and anecdotal background against which to debate the relative values (to the individual) of individual rights and successes, as opposed to the opportunity to be a well defined and integral part of a safe, whole and stable community. He concludes that: ". . .the East Asians .... have done a better job of . . . bringing their basic moral values to bear on the events of daily life." (page 246) and then reminds us again that "their basic moral values" are essentially similar to ours.

I know when I went to Japan, despite the instant illiteracy, I was quite astonished to find myself safely surrounded (in addition to much I didn't understand) by the values of my own youth that I no longer find at home in the "West." It's interesting that Reid apparently found the same from his much more informed perspective.

*Lynn*

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## A Note on the IX<sup>th</sup> Meeting of the PASPCR

by Lynn Lamoreux

Howdy y'all!

Today is August 26 and you're probably watching the news from Texas, now that you know you'll be here for the PASPCR meeting next year, June 25-28. You may have noticed some news items that are less than desirable. Like, we have three hurricanes in the gulf right now and one just past. Or temperatures in the hundreds, which I must say is an inconvenience to the sheep. BUT THAT'S WHY WE'RE NOT HAVING THIS MEETING IN AUGUST!

June is where it's at in Texas, but frankly I like August too. I stepped onto the deck this morning with my cup of decaf into shirtsleeve weather -- with no breeze to stir the air among the oaks -- and my first whiff this year of the sweet smell of raw cotton. I imagine the giant cotton-picker beetles that must have been working since daybreak in the Brazos bottom ten miles away. They remind me of star wars war machines moving inexorably across the flatlands, and .. .

But I digress. Y'all, poor souls, will miss the pleasures of August in Texas. You want to hear about June.

June is beautiful in Texas, but you probably won't get to appreciate Texas in June either because we have lined up a cracker-jack program for the PASPCR meeting, as you noticed in our last discussion, and you'll spend most of your time indoors, doing science. Bring a sweater; the air conditioning is sometimes excessive. (Bring something cool as well.)

Oh, yes, you will very soon receive your first meeting announcement, and we urge you to return the card so we will have a good idea how many to expect.

P.S. At the new-fangled Texas style barbecue we expect to have some unusual guests, including (cross your fingers) a cloned bull. Not to eat - to pet. And we are planning a "genotype contest," as well -- a friendly pigmented animal of unknown genotype. The contest, of course, is to guess the genotype, and is open to all including spouses, children and even scientists. The prize is yet to be determined. If anybody has suggestions as to an appropriate genotype for the contest, send me an email, but of course you won't be eligible to compete if we use your suggestion.

*Lynn Lamoreux*

LLamoreux@cvm.tamu.edu

It won't work if you don't spell it right!

### **Positions - Wanted and Available :**

**Postdoctoral Positions.** in the Department of Cell Biology at the NYU School of Medicine are available to study the biogenesis of melanosomes using a combined cellular, molecular and genetic approach. Prior experience in molecular or cell biology required. Applications from those with prior experience with yeast, *Drosophila* etc. interested in applying their skills to a mammalian system with strong genetics are especially welcome. A track record of productivity is essential. Send CV, brief description of experience and names of 3 references to: Seth J. Orlow, MD, PhD, NYU Medical Center, 560 First Avenue Room H-100, New York, NY 10016. Fax 212-263-5819, email: orlows01@mccr.med.nyu.edu

**Postdoctoral Research Associate** - Position available to study the biology of human inherited disorders of pigmentation using mouse knockout technology. The successful applicant will have a Ph.D. and/or M.D. with experience in cell biology and molecular biology. Experience with production of knockout mice using ES cell technology preferred. Please send curriculum vitae along with the names of three references to Dr. Richard King, Division of Genetics, Department of Medicine, Box 485 Mayo, 420 Delaware St. S.E., University of Minnesota, Minneapolis, MN 55455. Equal Opportunity Employer.

**Postdoctoral Position** - Ph.D. in molecular biology, biophysics, genetics or biochemistry. Position available to conduct research on molecular mechanisms of cellular response to oxidative stress in human melanocytes and melanoma cells and its regulation for preventive and therapeutic indications. Contact Dr. Frank L. Meyskens Jr., Director, University of California-Irvine, Chao Family Clinical Cancer Research Center, 101 The City Drive, Orange, CA 92668, USA. Fax (714) 456-5039 Email flmeyske@uci.edu

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## Members in the News -

**Seymour Pomerantz** - is retiring and going to Israel. We will miss his presence, but fortunately, not his valuable antibodies. As part of his contribution to aid in future pigment cell research, he has sent all his antibodies to Ruth Halaban for distribution. As part of this lot, Dr. Pomerantz has left several tubes containing anti-MSH rabbit serum. Ruth would like someone in the society to store these antibodies and distribute them to interested investigators. If you are interested in helping in the utilization of this valuable resource, please contact Dr. Ruth Halaban.

**Ray Boissey** - has retired as the Treasure of the PASPCR and this position will be taken up once again by Jim Nordlund. We would like to thank Ray for his help in taking up this important task.

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## Women's Scientist Forum

Dear Friends and Colleagues,

We are planning to hold a Women's Scientist Forum during the IPCC in Nagoya. Dr. Ito and Dr. Wakamatsu have arranged the forum, with lunch at 12:30-13:30, in the Shiratori Hall on November 3rd (the 5th day of the IPCC). You will find the schedule in the Program & Abstracts (Pigment Cell Research). It will be a good chance for female scientists to meet together and share ideas. Male scientists will be also welcome. It is not necessary to tell us the exact attendance right now, but I would appreciate it very much if you could inform us the number of people who will eventually join us. Thank you.

Sincerely,

*Sally, Sheila, Dorothy and Masako*

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## *Program for the XVII<sup>th</sup> International Pigment Cell Conference (IPCC)*

**October 30–November 3, 1999**  
**Nagoya Congress Center (NCC)**  
**Nagoya, Japan**

**PS: Plenary Session, CS: Concurrent Session, SL: Special Lecture, KL: Keynote Lecture, IL: Invited Lecture, OP: Oral Presentation, PP: Poster Presentation**

### **1<sup>st</sup> Day, Saturday, October 30**

09:30–11:00 Regional society council meetings ESPCR Room 433/PASPCR 434/JSPCR 435  
10:00–20:00 Registration/Information 1<sup>st</sup> Floor Lobby, the NCC Bldg.2  
11:00–13:00 IFPCS council meeting 1 Room 434

13:00–17:00 **Satellite Meeting No. 1** Room 222  
Organizers: Seung-Kyung Hann, James J. Nordlund

## Vitiligo: A Manifestation of Apoptosis?

13:00–17:00 **Satellite Meeting No. 2** Room 224

Organizers: Colin R. Goding, William J. Pavan, Hiroaki Yamamoto

### Pigmentary Genes

15:00–20:00 Poster set-up Shirotori Hall 2, Exhibition Room (Room 211/212)

18:00–19:30 Welcome reception Cascade (NCC)

## 2<sup>nd</sup> Day, Saturday, October 31

08:00–18:00 Registration/Information 1<sup>st</sup> Floor Lobby, the NCC Bldg.2

08:00–12:00 Poster set-up Shirotori Hall 2, Exhibition Room (Room 211/212)

08:00–08:30 Light breakfast Shirotori Hall 2

08:30–08:40 Opening remarks Shirotori Hall 1

08:40–09:20 **Special Lecture No. 1** Shirotori Hall 1

Chairperson: Shosuke Ito

08:40 **SL1 Molecular Biology of Catecholamines and Tetrahydrobiopterin Cofactor**

*Toshiharu Nagatsu, Hiroshi Ichinose, Japan*

09:20–10:00 **Special Lecture No. 2** Shirotori Hall 1

Chairperson: Jiro Matsumoto

09:20 **SL2 Dual Control of Melanogenesis and Melanoma Growth – Molecular to Clinical Level and the Reverse**

*Yutaka Mishima, Japan*

10:00–10:30 Break

10:30–12:30 **Plenary Symposium No. 1** Shirotori Hall 1

### PS1 Biochemistry of Melanogenesis, Melanosomes, and Melanocytes

Chairpersons: José C. García-Borrón, Genji Imokawa, John Pawelek

10:30 Signals and Molecules Involved in Melanosome Biogenesis and Melanocyte Differentiation  
*Kowichi Jimbow, Japan (KL1)*

11:05 Phaeo- and Eumelanogenic Preferences in Cultured Human Pigment Cells

*Nico P.M. Smit, Ria M. Kolb, Frans van Nieuwpoort, Hans van der Meulen, A. Mieke Mommaas, Henk K. Koerten, Stan Pavel, The Netherlands (IL1)*

11:25 New Insights on the Murine SILVER Locus: On the Expression of the Transcript in Wild-Type and SILVER Mutation and Function of the Protein

*Francisco Solano, María Martínez-Esparza, Celia Jiménez-Cervantes, Dorothy C. Bennett, Consuelo Egea, José A. Lozano, José C. García-Borrón, Spain and UK (IL2)*

11:45 Direct Interaction of Tyrosinase With the Brown Locus Protein (Tyrp1) In Vivo

*Takeshi Kobayashi, Vincent J. Hearing, Japan and USA (OP1)*

12:00 Aberrant Folding and Transport of OCA1-Mutant Tyrosinases

*Kazutomo Toyofuku, Ikuo Wada, Richard A. Spritz, Vincent J. Hearing, USA and Japan (OP2)*

12:15 The Presence of POMC-Related Peptides in the Melanosome

*Eva M.J. Peters, Desmond J. Tobin, Nabil G. Seidah, Karin U. Schallreuter, UK and Canada (OP3)*

12:30–13:30 Lunch and poster viewing

13:30–14:30 Poster viewing Shirotori Hall 2, Exhibition Room (Room 211/212)

11:30–15:30 Tea ceremony Shirotori Garden

14:30–16:30 Concurrent Symposium No. 1 Shirotori Hall 1

### CS1 Vitiligo and Related Pigmentary Disorders

Chairpersons: Jean Bolognia, Pranab K. Das, Masako Mizoguchi

14:30 Intrinsic and Extrinsic Pathomechanisms in Vitiligo

*Alain Taïeb, France (KL2)*



- 15:05 Vitiligo in Tanzania  
*James J. Nordlund, USA (IL3)*
- 15:25 A Role of the Nervous System in the Pathogenesis of Segmental Vitiligo  
*Seung-Kyung Hann, South Korea (IL4)*
- 15:45 The Hydrogen Peroxide Oxidation Products of the Essential Cofactor 6(R)-L-Erythro 5,6,7,8 Tetrahydrobiopterin (6BH4) May Indicate a Different Recycling Pathway For This Cofactor in Vitiligo  
*Jeremy Moore, Wayne D. Beazley, John M. Wood, Karin U. Schallreuter, UK (OP4)*
- 16:00 A Novel Gene Associated With Vitiligo  
*I. Caroline Le Poole, Rangaprasad Sarangarajan, Toru Miki, Raymond E. Boissy, USA (OP5)*
- 16:15 Induction of Hair Depigmentation and Melanoma Rejection By CD4<sup>+</sup> T-Cell Depletion In Vivo: A Study Using IL-12 Transfected B-16 Melanoma Cells  
*H. Nagai, T. Horikawa, I. Hara, M. Ichihashi, Japan (OP6)*

14:30–16:30 **Concurrent Symposium No. 2** Room 224

### CS2 Chemistry and Biophysics of Melanin and Melanogenesis

Chairpersons: Anthony J. Nappi, Patrick A. Riley, Kazumasa Wakamatsu

- 14:30 Chemical Analysis of Melanins and its Application to the Study of Melanogenesis Regulation  
*Shosuke Ito, Kazumasa Wakamatsu, Hiroyuki Ozeki, Japan (KL3)*
- 15:05 The Source and Significance of DOPA in Phase I Melanogenesis  
*Patrick A. Riley, UK (IL5)*
- 15:25 Changes of Antioxidant Properties of Retinal Melanin With Aging  
*Tadeusz Sarna, Malgorzata Rózanowska, Witold Korytowski, Mariusz Zareba, Janice M. Burke, Poland and USA (IL6)*
- 15:45 Dopachrome and Dopaminechrome Cytotoxicity Against Murine Melanoma and Neuroblastoma Cells  
*Jun Matsunaga, Nobuhiko Kobayashi, Naoko Matsunaga, Vincent J. Hearing, USA (OP7)*
- 16:00 Melanin Repairs Oxidized Carotenoids  
*M. Rózanowska, R. Edge, E.J. Land, T. Sarna, T.G. Truscott, Poland and UK (OP8)*
- 16:15 The Relationship Between Redox Activity and Aggregation State of L-DOPA Melanin  
*Jeffrey M. Tosk, Cathy A. Macknet, Alex Lin, Calvin Chin, Stanton Dulan, Mona Karimpour, Meriam Makary, Robert R. Torrey, USA (OP9)*

16:30–16:45 Break

16:45–18:45 Plenary Symposium No. 2 Shirotori Hall

### PS2 Basic Biology of Melanoma

Chairpersons: Ghanem Ghanem, Frank L. Meyskens Jr., Minoru Takata

- 16:45 Crosstalk Between Human Melanocytes and Keratinocytes  
*Meenhard Herlyn, USA (KL4)*
- 17:20 Melanoma Cell Interactions With ECM Proteins and Adjacent Cells and the Influence of Sex Steroids on Melanoma Invasion  
*S. Mac Neil, B. Richardson, M. Wagner, P. Eves, C. Layton, R. Morandini, G. Ghanem, UK and Belgium (IL7)*
- 17:40 T-Cell Responses to Melanoma and Melanocytes  
*Yutaka Kawakami, Japan (IL8)*
- 18:00 The Melanosomal Transport Signal Trafficks Antigens to the MHC Class II Pathway  
*Shirley Bartido, Siqin Wang, George Yang, Jie Qin, Yoichi Moroi, Jonathan Lewis, Alan Houghton, USA (OP10)*
- 18:15 Hybrid Tumor? Host Lung Metastases From a Cloudman S91 DBA/2J Tumor in a BALB/c NU/NU Mouse  
*A.K. Chakraborty, M. Rachkovsky, J. Bolognia, J. Pawelek, S. Sodi, USA (OP11)*
- 18:30  $\alpha$ -MSH Opposes Acute Response to TNF- $\alpha$  and Exogenous Peroxide in Melanoma Cells and Keratinocytes  
*J.W. Haycock, S.J. Rowe, A. Wyatt, I.G. Rennie, S. Mac Neil, UK (OP12)*
- 18:45–19:00 Break

19:00–20:00 **Evening Session No. 1** (With light meal) Shirotori Hall  
**ES1 Melanoblasts, Melanocytes and Melanoma Cells: What is in Common and What is Not?**  
Organizer: Tomohisa Hirobe  
Speakers: Dorothy C. Bennett, Meenhard Herlyn, Tomohisa Hirobe

19:00–20:00 **Evening Session No. 2** (With light meal) Room 224  
**ES2 Advances in Melanoma Management**  
Organizer: Alistair J. Cochran  
Speakers: Alistair J. Cochran, Toshiro Kageshita, Frank L. Meyskens Jr.

### **3<sup>rd</sup> Day, Monday, November 1**

08:00–18:00 Registration/Information 1st Floor Lobby, the NCC Bldg. 2  
08:00–08:30 Light breakfast Shirotori Hall 2

08:30–10:30 **Plenary Symposium No. 3** Shirotori Hall

#### **PS3 Molecular Biology of Pigmentation and Pigment Cells**

Chairpersons: Robert A. Ballotti, Murray Brilliant, Hiroshi Hori  
08:30 Regulation of Pigment Cell-Specific Gene Expression By MITF  
*Shigeki Shibahara, Japan (KL5)*  
09:05 Transcription and Signalling in the Melanocyte Lineage  
*Colin R. Goding, UK (IL9)*  
09:25 Mouse Models of Hermansky–Pudlak Syndrome  
*Richard T. Swank, USA (IL10)*  
09:45 Regulation of Microphthalmia-Associated Transcription Factor MITF Protein Levels By Association With the Human Ubiquitin-Conjugating Enzyme hUBC9  
*Weidong Xu, Limin Gong, Maher M. Haddad, Oliver Bischof, Judith Campisi, Edward T.H. Yeh, Estela E. Medrano, USA (OP13)*  
10:00 Involvement of Ubiquitous Transcription Factors (ITF2 and E2A) in the Regulation of Melanogenic Gene Expression  
*Minao Furumura, S. Brian Potterf, Kazutomo Toyofuku, Jun Matsunaga, Vincent J. Hearing, USA (OP14)*  
10:15 Repression of Melanocyte-Specific Promoters By E1A Oncoprotein  
*Jiri Vachtenheim, Hana Novotna, Ivana Kohoutova, Czech Republic (OP15)*  
10:30–10:50 Break

10:50–11:30 **Special Lecture No. 3 ‘Seiji Memorial Lecture’** Shirotori Hall  
Chairperson: Vincent J. Hearing

10:50 **SL3 Melanoma Genes and the Senescence and Immortalization of Melanocytes**  
***Dorothy C. Bennett, UK***

11:30–12:00 IFPCS general assembly Shirotori Hall 1  
12:00–13:00 Regional Society General Assemblies (with lunch) JSPCR Shirotori Hall 1/PASPCR Room 224  
13:00–14:30 **Poster Session No. 1** Shirotori Hall 2, Exhibition Room (Room 211/212)  
Odd-numbered poster authors

14:30–16:30 **Concurrent Symposium No. 3** Shirotori Hall 1

#### **CS3 Melanoma: Ultraviolet Light, Diagnosis and Treatment**

Chairpersons: Alistair J. Cochran, Bertil Kagedal, Juichiro Nakayama  
14:30 Understanding Regulation of NFκB as a Basis For Melanocyte Transformation and Melanoma Cell Therapeutic Resistance  
*Frank L. Meyskens Jr., Susan McNulty, Niloufar Tohidian, Julie Buckmeier, USA (KL6)*

- 15:05 Surgical Treatment of Cutaneous Melanoma  
*Natale Cascinelli, Italy (IL11)*
- 15:25 Effective Early Detection of Malignant Melanoma on the Sole  
*Toshiaki Saida, Japan (IL12)*
- 15:45 Does PCR Detect Melanoma in Sentinel Nodes (SN) That is Not Detected By Immunohistochemistry?  
*J. Guo, J. Messina, D.-R. Wen, R. R. Huang, D. Reintgen, A.J. Cochran, USA (OP16)*
- 16:00 Development of a MART-1 DNA Vaccine and Recombinant MART-1 Protein For Melanoma Vaccine Clinical Trials  
*Seung-won Lee, Hui Li, Theresa V. Strong, Susan E. Moore, Robert M. Conry, USA (OP17)*
- 16:15 Primary Cutaneous and Vulvar Melanomas are Dissimilar in Clinical and Histopathological Features, But Similar in TP53 Mutations  
*Boel Ragnarsson-Olding, Anton Platz, Sofia Karsberg, Lena Kanter-Lewensohn, Ulrik Ringborg, Sweden (OP18)*

14:30–16:30 **Concurrent Symposium No. 4** Room 224

#### **CS4 Comparative Biology of Pigmentation**

Chairpersons: Sally Frost Mason, Sumiko Negishi, Manfred Scharl

- 14:30 Dynamics of Pigment Cells in Poikilothermal Vertebrates  
*Noriko Oshima, Japan (KL7)*
- 15:05 Insect Pigmentation: Enzyme Activities in Wing Color Pattern Mutation in the Swallow tail Butterfly, *Papilio glaucus*  
*Paul B. Koch, Bettina Behnecke, Marga Weigmann-Lenz, Richard H. ffrench-Constant, Germany and UK (IL13)*
- 15:25 Evolution and Development of Pigment Cells: At the Crossroads of the Discipline  
*Sally Frost Mason, Kenneth A. Mason, USA (IL14)*
- 15:45 Migration Patterns of Melanoblast in Chicken Pigmentation Mutants  
*Laure Lecoin, Miche`le Tixier-Boichard, Nicole Le Douarin, France (OP19)*
- 16:00 The Effects of Extracts From the White Mutant of the Mexican Axolotl on Cultured Melanoma Cells  
*Nathan B. Parker, Kenneth A. Mason, USA (OP20)*
- 16:15 Oncogenic Xmrk Receptor Suppresses Microphthalmia-Mediated Melanocyte Differentiation.  
*Claudia Wellbrock, Eva Geissinger, Petra Fischer, Manfred Scharl, Germany (OP21)*

16:30–16:45 Break

16:45–18:45 **Plenary Symposium No. 4** Shirotori Hall

#### **PS4 Inter: Intracellular Signaling Pathways in Melanocytes**

Chairpersons: Tomohisa Hirobe, Sheila Mac Neil, Glynis Scott

- 16:45 Microenvironmental Control of Melanocyte Life-Style  
*Shin-Ichi Nishikawa, Emi Nishimura, Takahiro Kunisada, Hisahiro Yoshida, Japan (KL8)*
- 17:20  $\alpha$ -MSH and the Regulation of Melanocyte Function  
*Anthony J. Thody, UK (IL15)*
- 17:40 Cell Cycle and Pigment Genes Involved in Terminal Differentiation of the Human Melanocyte  
*Estela E. Medrano, Debduitta Bandyopadhyay, Maher Haddad, Denise J. Schwahn, Elise S. Bales, Weidong Xu, USA (IL16)*
- 18:00 Microtubule Motor Kinesin II and Actin Motor Myosin V Cooperate in Pigment Dispersion in Melanophores  
*Maria Carolina Tuma, Joseph Roland, Vladimir Gelfand, USA (OP22)*
- 18:15 Mitogen and Stress-Induced Activation of MAP Kinases and CREB in Human Melanocytes  
*Akihiro Tada, Zalfa Abdel-Malek, Japan and USA (OP23)*
- 18:30 Dual Signalling By Human Melanocortin-1 (MC-1) Receptor in Melanocytes and Melanoma Cells  
*S. Mac Neil, D. Hay, M. Wagner, R. Morandini, G. Ghanem, UK and Belgium (OP24)*

### **4th Day, Tuesday, November 2**

08:00–12:30 Registration/Information 1<sup>st</sup> Floor Lobby, the NCC Bldg. 2

08:00–08:30 Light breakfast Shirotori Hall

08:30–09:10 **Special Lecture No. 4 'Presidential Address'** Shirotori Hall

Chairperson: Masako Mizoguchi

08:30 The Melanosome: The Perfect Model For Cellular Responses to the Environment  
*Vincent J. Hearing, USA (SL4)*

09:10–09:50 **Special Lecture No. 5** Shirotori Hall

Chairperson: Toshiharu Nagatsu

09:10 A Cell-Surface Molecule, Neuropilin 1, Which Plays Essential Roles in Axon Guidance and Embryonic Vessel Formation  
*Hajime Fujisawa, Japan (SL5)*

09:50–10:10 Break

10:10–12:10 **Concurrent Symposium No. 5** Shirotori Hall

### **CS5 Melanocyte Photobiology/chemistry and UV Protection**

Chairpersons: Zalfa Abdel-Malek, Masamitsu Ichihashi, Mauro Picardo

10:10 Tanning as Part of the SOS Response

*Barbara A. Gilchrest, Mark S. Eller, USA (KL9)*

10:45 Defining the Role of Melanins in Photoprotection

*Helene Z. Hill, George J. Hill, USA (IL17)*

11:05 The Inhibitory Effect of  $\alpha$ -Tocopheryl Ferulate on UV-Induced Melanogenesis

*Yoko Funasaka, Masamitsu Ichihashi, Japan (IL18)*

11:25 Correlation Between Antioxidant Activities and Phototype. Possible Role in the Development of Melanoma

*Mauro Picardo, Vittoria Maresca, Norma Cameli, Laura Eibenschutz, Stefania Briganti, Alessandra Urbanelli, Italy (OP25)*

11:40 Human Melanocytes are Less Sensitive Than Keratinocytes or Fibroblasts to the Cytotoxic and Genotoxic Effects of Ultraviolet Radiation and Arsenic

*Osamu Moro, Mary Beth Davis, Viki Swope, Steven Boyce, Kathleen Dixon, Zalfa Abdel-Malek, Japan and USA (OP26)*

11:55 Induction and Repair of UVB-Induced Cyclobutane Pyrimidine Dimers and 6-4 Photoproducts in Cultured Human Melanocytes With Varying Degrees of Pigmentation

*Nico P.M. Smit, A.A. Vink, A.M. Kolb, A.F. van Nieuwpoort, J. van der Meulen, L. Roza, S. Pavel, The Netherlands (OP27)*

10:10–12:10 **Concurrent Symposium No. 6** Room 224

### **CS6 Ocular/Extracutaneous Melanin and Melanogenesis**

Chairpersons: Dan-Ning Hu, Shosuke Ito, Giuseppe Prota

10:10 Melanogenesis and Growth of Ocular Pigment Cells

*Dan-Ning Hu, USA (KL10)*

10:45 A New Insight in Melanin Pigmentation of Human Irides and Cultured Uveal Melanocytes

*Giuseppe Prota, Italy (IL19)*

11:05 Chemical Characterization of Neuromelanin

*Kazumasa Wakamatsu, Shosuke Ito, Luigi Zecca, Japan and Italy (IL20)*

11:25 Ocular Melanocytes are Resilient to and Do Not Express Receptors For Melanocyte-Stimulating Hormone

*Raymond E. Boissy, Huiquan Zhao, Li Li, Zalfa Abdel-Malek, Itaru Suzuki, James J. Nordlund, USA and Japan (OP28)*

11:40 Optimisation of Gene Transfer to Cultured Human Retinal Pigment Epithelial Cells and Uveal Melanocytes: Investigation of Tyrosinase Activity and Gene Expression

*Khaled Abul-Hassan, Mike Boulton, UK (OP29)*

11:55 The Modulation of Nitric Oxide by Melanin in Uveal Melanocytes

*Joan E. Roberts, Dan-Ning Hu, USA (OP30)*

12:30–17:30 Excursions (Departure form NCC; Return to Hotel)

**EX1 Castles in Nagoya**

**EX2 Culture in Nagoya**

**EX3 Industries in Nagoya**

18:00–19:00 Reception 'Tenku' Nagoya Miyako Hotel–3rd Floor

19:00–21:30 Awards banquet 'Shiun' Nagoya Miyako Hotel–3rd Floor

### **5<sup>th</sup> Day, Wednesday, November 3**

08:00–19:00 Registration/Information 1st Floor Lobby, the NCC Bldg. 2

08:00–08:30 Light breakfast Shirotori Hall 2

08:30–10:10 **Plenary Symposium No. 5** Shirotori Hall 1

#### **PS5 Recent Advances in Pigment Cell Research**

##### **'Hot Topics' Symposium**

Chairpersons: Vincent J. Hearing, Stan Pavel, Shigeki Shibahara

08:30 A Novel Approach to Gene Therapy of Pigment Disorders With a Retroviral Streptomyces Tyrosinase Gene

*Ming Zhao, Norimitsu Saito, Lingna Li, Eugene Baranov, Hirofumi Kondoh, Yutaka Mishima, M. Sugiyama, Kensei Katsuoka, Robert M. Hoffman, USA and Japan (OP31)*

08:50 Potential Roles of the Cytoplasmic Tail of Stem Cell Factor in Basal Keratinocytes

*Bernhard Wehrle-Haller, Switzerland (OP32)*

09:10 Establishment of a Spontaneously Malignant Melanoma-Developing Transgenic Mouse Line

*Masashi Kato, Japan (OP33)*

09:30 The Protease-Activated Receptor-2 Regulates Pigmentation Via Keratinocyte–Melanocyte Interactions

*Miri Seiberg, Christine Paine, Elizabeth Sharlow, Patricia Andrade-Gordon, Michael Costanzo, Mag-dalena Eisinger, Stanley Shapiro, USA (OP34)*

09:50 Molecular Characterization of the Black-Eyed White Gene: The Loss of a Single MITF Isoform Results in Pigmentary Defect and Hearing Loss

*Shigeru Sato, Ichiro Yajima, Yasuko Yoshida, Ken-ichi Yasumoto, Shigeki Shibahara, Colin R. Goding, Hiroaki Yamamoto, Japan and UK (OP35)*

10:10–10:30 Break

10:30–12:30 Concurrent Symposium No. 7 Shirotori Hall 1

#### **CS7 Genetics of Pigmentation**

Chairpersons: Friedrich Beermann, Richard A. King, Yasushi Tomita

10:30 Biochemical and Genetic Studies of Pigment Type-Switching

*Greg Barsh, Teresa Gunn, Lin He, Stuart Schlossman, Jonathan Duke-Cohan, USA (KL11)*

11:05 Molecular Bases of Congenital Pigmentary Disorders in Humans

*Yasushi Tomita, Japan (IL21)*

11:25 Evolution of the Molecular Mechanisms For Pigment Cell Differentiation

*Hiroaki Yamamoto, Ichiro Yajima, Reiko Toyoda, Kosuke Endo, Yukinori Endo, Mayuko Kumasaka, Ken-ichi Yasumoto, Shigeki Shibahara, Colin R. Goding, Shigeru Sato, Japan and UK (IL22)*

11:45 The Zebrafish Colourless Mutation as a Model For Waardenburg–Shah Syndrome

*Robert N. Kelsh, Kirsten A. Dutton, Judith S. Eisen, USA and UK (OP36)*

12:00 The Gene Product of the Mouse Underwhite (*uw*) Locus Acts Autonomously and Effects the Production of Pheomelanin

*Murray H. Brilliant, Anne L. Lehman, Willys K. Silvers, Neelu Puri, USA (OP37)*

12:15 Informatic Selection of a Neural Crest-Melanocyte cDNA Set For Microarray Analysis

*S. Loftus, Y. Chen, G. Gooden, J. Ryan, G. Birznieks, M. Hilliard, A. Baxevanis, M. Bittner, P. Meltzer, J. Trent, W. Pavan, USA (OP38)*

10:30–12:30 **Concurrent Symposium No. 8** Room 224

#### **CS8 Control of Hyper/Hypopigmentation**

Chairpersons: Raymond E. Boissy, Yutaka Mishima, Nico Smit

- 10:30 Keratinocyte-Melanocyte Co-Cultures and Pigmented Reconstructed Epidermis as Models to Study Skin Pigmentation and its Modulation  
*Rainer Schmidt, Christine Duval, Marcelle Régnier, France (KL12)*
- 11:05 The Melanocortin-1 Receptor is a Key Regulator of Human Cutaneous Pigmentation  
*Zalfa Abdel-Malek, M. Cathy Scott, Itaru Suzuki, Akihiro Tada, Sungbin Im, Lynn Lamoreux, Greg Barsh, Vincent Hearing, USA, Japan and South Korea (IL23)*
- 11:25 Dendrite Formation and Melanosome Transfer – Beyond the Electron Microscope  
*Glynis Scott, USA (IL24)*
- 11:45 Bioactive Domains and Expression Patterns of Agouti Signal Protein  
*Victoria M. Virador, Naoko Matsunaga, Minao Furumura, Vincent J. Hearing, USA (OP39)*
- 12:00 Modulation of Melanin Neosynthesis By Plant Extracts in Human Keratinocyte-Melanocyte Co-Culture System  
*Moonjeong Kim, Dongil Jang, Euseok Shin, Jinseon Lee, Youngcheol Sim, South Korea (OP40)*
- 12:15 A Paracrine Role of Stem Cell Factor/c-Kit Linkage in UVB-Induced Pigmentation  
*Akira Hachiya, Akemi Kobayashi, Atushi Ohuchi, Yoshinori Takema, Genji Imokawa, Japan (OP41)*
- 12:30–13:30 Lunch
- 12:30–13:30 Women scientist forum (with lunch) Shirotori Hall 1
- 13:30–15:00 IFPCS council meeting 2 Room 434
- 13:30–15:00 **Poster session No. 2** Shirotori Hall 2, Exhibition Room (Room 211/212)  
Even-numbered poster authors

15:00–17:00 **Plenary Symposium No. 6** Shirotori Hall 1

### **PS6 Developmental Biology of Pigment Cells**

Chairpersons: Dorothy C. Bennett, Randall Morrison, Shin-Ichi Nishikawa

- 15:00 Molecular Control of the Development of Pigment Cells From the Neural Crest  
*Elisabeth Dupin, Laure Lecoin, Ronit Lahav, Valérie Nataf, Catherine Ziller, Nicole M. Le Douarin, France (KL13)*
- 15:35 The Roles of Endothelin 3 and Stem Cell Factor on Melanocyte Development in Cultured Mouse Neural Crest Cells  
*Masako Mizoguchi, Yoko Kawa, Mari Asano, Shiho Ohka, Nagako Takano, Takako Baba, Hirotake Ono, Yasuo Kubota, Japan (IL25)*
- 15:55 Microphthalmia Transcription Factor: A Signal Responsive Regulator of Melanocyte Development  
*David E. Fisher, USA (IL26)*
- 16:15 Effect of Hepatocyte Growth Factor (HGF) on the Development of Melanocytes In Vivo.  
*Takahiro Kunisada, Hidetoshi Yamazaki, Tomohisa Hirobe, Mituaki Omoteno, Shin-Ichi Hayashi, Japan (OP42)*
- 16:30 Regulation of MITF Gene Expression By SOX10  
*S. Brian Potterf, Minao Furumura, Joyce Dunn, Heinz Arnheiter, William J. Pavan, USA (OP43)*
- 16:45 Melanocyte Development in Neural Crest Cell Cultures: Genetic Hierarchies Between KIT and MITF Transcription  
*Ling Hou, Jean-Jacques Panthier, and Heinz Arnheiter. USA and France (OP44)*

15:00–17:00 **Public Forum** Room 224

### **Wonder of Animal Colors**

Chairperson: Jiro Matsumoto

Speakers: Hiroshi Hori, Bernhardt Koch, James J. Nordlund

17:00–18:30 Poster prizes and farewell drink Cascade (NCC)

15:00–19:00 Poster removal

## **6<sup>th</sup> Day, Thursday, November 4**

09:00–17:00 **Satellite Meeting No. 3** Room 224

Organizers: Dorothy C. Bennett, Randall Morrison, Shin-Ichi Nishikawa

## Cellular and Molecular Control of Pigment Cell Development

09:00–13:00 **Satellite Meeting No. 4** Room 222

Organizers: Alistair J. Cochran, Toshiaki Saida

### Sentinel Node Mapping and Dissection in Diagnosis and Treatment of Melanoma

#### Poster Sessions

Posters will be displayed throughout the conference either in Shirotori Hall 2 or in the Exhibition Room (Room 211/212). There will be two poster discussion sessions. Poster Session 1 (for odd-numbered posters) will take place from 13:00 to 14:30 on Monday, November 1, 1999. Poster Session 2 (for even-numbered posters) will take place from 13:30 to 15:00 on Wednesday, November 3, 1999. Presenters should be at their posters for the entire discussion session.

#### Basic Biology of Melanoma

- PP1 Expression of an Actin-Binding Protein, Calponin h1 (CNh1) is Reduced in Blood Vessels of Human Malignant Skin Tumors Including Melanoma  
*Y. Koganehira, T. Ehara, M. Takeoka, T. Saida, S. Taniguchi, Japan*
- PP2 Inter-Relationship Between Tyrosinase and TRP-1 With  $\gamma$ -Glutamyl Transpeptidase in B-16 Melanoma Cells  
*Vaishali Chaubal, Manoj Mojamdar, India*
- PP3 Clonal Heterogeneity in Sporadic Melanomas as Revealed By Loss of Heterozygosity Analysis  
*Minoru Takata, Reiji Morita, Kazuhiko Takehara, Japan*
- PP4 Are Photoperiod and Exogenous Testosterone Modulating Cloudman's Melanoma Growth and Melanogenesis in DBA/2J Mice?  
*Paulo Alexandre Arid Allil, Ana Maria de Lauro Castrucci, Brazil*
- PP5 Clinical Significance of  $\alpha v \beta_3$  Integrin Expression on Cells and Blood Vessels in Melanocytic Lesions  
*Toshiro Kageshita, Carl V. Hamby, Soldano Ferrone, Tomomichi Ono, Japan and USA*
- PP6 Co-Expression of MSG1 and P27<sup>KIP1</sup> in Benign and Malignant Melanocytic Lesions  
*Masato Ueda, Nazim U. Ahmed, Toshi Shioda, Masamitsu Ichihashi, Japan*
- PP7 Macrophage? Melanoma Hybridization as a Potential Initiating Factor in Metastasis  
*J. Pawelek, S. Sodi, M. Rachkovsky, J. Bolognia, N. Kolesnikova, A. Chakraborty, USA*
- PP8 Ferrous Ions Promote an Anti-Apoptotic Pathway in Human Metastatic Melanoma Cells  
*Thomas J. Spillane, Julie A. Buckmeier, Niloufar B. Tohidian, Hung V. Chau, Frank L. Meyskens Jr., USA*
- PP9  $\alpha$ -PKC is Essential For TPA-Induced Phospholipase D Activation in Human Melanoma Cells  
*Masahiro Oka, Mizuho Fukunaga, Masamitsu Ichihashi, Japan*
- PP10 Immunohistochemical Detection of Cytokines and Their Receptors on Dendritic Cells in Cancer-Influenced Lymph Nodes  
*R.R. Huang, J. Guo, D.-R. Wen, A.J. Cochran, USA*
- PP11 UV-Induction of Paragenetic Suppressors of Suppressor Genes in the Xiphophorine Spot and Melanoma System  
*Fritz Anders, Jamilah Michel, Germany*

#### Biochemistry of Melanogenesis, Melanosomes, and Melanocytes

- PP12 Sorting of Tyrosinase  
*Alexander C. Theos, Margaret S. Robinson, UK*
- PP13 Oscillating B-16 Melanoma Cells: A Model For Investigating Initiation/Commitment in Pigment Cells  
*Manoj Mojamdar, Bhuvaneshwari Jagadisan, Anupma Sharma, India*
- PP14 Contribution of the Proteasome Pathway to the Linoleic Acid-Induced Degradation of Tyrosinase in Cultured Melanoma Cells  
*Hideya Ando, Yoko Funasaka, Masahiro Oka, Vincent J. Hearing, Masamitsu Ichihashi, Japan and USA*
- PP15 Regulation of Tyrosine Hydroxylase Activity of Tyrosinase and Tyrosinase Related Protein-1 (TRP-1).  
*Rangaprasad Sarangarajan, Raymond E. Boissy, USA*

- PP16 Is Tyrosinase Activity in the Pigmentation Cascade Controlled By Tyrosine Hydroxylase?  
*Lee K. Marles, Eva M.J. Peters, Desmond J. Tobin, Karin U. Schallreuter, UK*
- PP17 Hydrogen Peroxide Inhibits Melanogenesis in B16 Melanocytes By Downregulation of Tyrosinase and TRP1. Possible Involvement of Microphthalmia  
*Cristina Pérez, Celia Jiménez-Cervantes, Nicole Daum, Francisco Solano, José Carlos García-Borrón, Spain*
- PP18 Independent Regulation of Tyrosinase By the Hypopigmenting Cytokines TGF $\beta$ 1 and TNF $\alpha$  and the Melanogenic Hormone  $\alpha$ MSH in B16 Mouse Melanocytes  
*María Martínez-Esparza, Francisco Solano, José C. García-Borrón, Spain*
- PP19 Role of Calnexin and Calreticulin in the Folding of Tyrosinase-Related Protein-1 (TRP-1).  
*Fumihiko Kato, Ikuo Wada, Kowichi Jimbow, Japan*
- PP20 KIT<sup>+</sup>Melanocytes Seem to Contribute To Melanocyte Proliferation After UV Exposure as Precursor Cells  
*Yoshiharu Kawaguchi, Tomio Okada, Tomonori Katada, Atsuo Nakayama, Japan*
- PP21 Biogenesis and Subcellular Localization of Human Melanosome-Associated Antigen, HMSA-1  
*Kyoka Shinoda, Hidenobu Matsusaka, Toshiharu Yamashita, Kowichi Jimbow, Japan*
- PP22 Melanosome Biogenesis and Transport of Human Tyrosinase After Gene Transfer  
*Kuninori Hirotsuki, Hai-Ying Jin, Toshiharu Yamashita, Ikuo Wada, Sadao Sugiyama, Kowichi Jimbow, Japan*
- PP23 Expression of Exon 2 of Porcine Agouti Gene in Escherichia coli  
*Carl Westby, Sheila Esser, Donald Marshall, Nels Granholm, USA*

#### **Chemistry and Biophysics of Melanin and Melanogenesis**

- PP24 X-Ray Diffraction Studies of Synthetic Neuromelanins  
*Melvin Eisner, Simon C. Moss, USA*
- PP25 Ionic Polarization in Dielectric Behavior of L-DOPA-Water Mixture  
*Haruyo Yoshizaki, Japan*
- PP26 Oxygen Absorption and Reduction on Fractal Melanin Particles  
*Pier Raimondo Crippa, Myriam Perna, Italy*
- PP27 The Fluorescence Properties of Eumelanin  
*John D. Simon, J. Brian Nofsinger, Susan E. Forest, USA*
- PP28 An Explanation For the Disparity Among the Absorption and Action Spectra of Eumelanin  
*John D. Simon, J. Brian Nofsinger, Susan E. Forest, USA*
- PP29 Reaction of Dopamine With Cinnamoyl Chlorides in the Solid State  
*Yoshikatsu Ito, Yasuhiro Sindo, Japan*
- PP30 L-DOPA Treatment in Patients With a History of Malignant Melanoma  
*Nil Dizdar, Anita Kullman, Bertil Kägedal, Sweden*
- PP31 Boronophenylalanine and Related Compounds Form Chemical Complexes and Suppress Melanin Polymer Formation  
*Katsura Yamaguchi, Hirofumi Kondoh, Mitsutaka Kadota, Mitsunori Kirihata, Yoshinobu Fukumori, Yutaka Mishima, Japan*
- PP32 AHP and PTCA Content of Hairs From Congenic Mice Mutant at Major Pigment Loci  
*M. Lynn Lamoreux, Kazumasa Wakamatsu, Shosuke Ito, USA and Japan*

#### **Comparative Biology of Pigmentation**

- PP33 Endothelins May Participate in the Control of Motile Activities of Chromatophores in Fish  
*Ryozo Fujii, Hiroshi Hayashi, Tomohiro Fujita, Noriko Oshima, Japan*
- PP34 Prolactin: An Ancient Hormone With Pigment Cell Activity in Vertebrates  
*Guilherme Correa Ramanzini, Carolina Reuter Camargo, Maria Aparecida Visconti, Ana Maria de Lauro Castrucci, Brazil*
- PP35 Occurrence of Ommochrome-Containing Pigment Granules in the Central Nervous System of the Silkworm, Bombyx mori  
*Hiroshi Sawada, Motoko Nakagoshi, Japan*
- PP36 Endothelins Induce Pigment Aggregation in Non-Innervated Melanophores of Teleost *Synbranchus marmoratus*



- PP37 *Guilherme Corrêa Ramanzini, Maria Aparecida Visconti, Ana Maria de Lauro Castrucci, Brazil*  
In-Vivo Expression of Heat Shock Proteins 72 and 27 in Non-Stressed Cells of Different Skin Phototypes  
*Stefanie Behrens, William Ashraf, Karin Schallreuter, UK*
- PP38 *Stefanie Behrens, William Ashraf, Karin Schallreuter, UK*  
The Role of Sympathetic Innervation in the Regulation of Apoptosis in Melanophores of the Medaka, *Oryzias latipes* (Teleostei)  
*Masazumi Sugimoto, Nao Uchida, Japan*
- PP39 *Masazumi Sugimoto, Nao Uchida, Japan*  
Melanosomes in Transgenic Medaka Fish Bearing the Gene For Mouse Tyrosinase: A Possible Shift of Their Genesis to Mouse Type  
*Euichi Hirose, Hirotake Ono, Tasuya Tsubokawa, Hiroaki Yamamoto, Shosuke Ito, Jiro Matsumoto, Japan*
- PP40 *Euichi Hirose, Hirotake Ono, Tasuya Tsubokawa, Hiroaki Yamamoto, Shosuke Ito, Jiro Matsumoto, Japan*  
Skin Lightening in Three Ethnic Groups By a Topical Product Containing Niacinamide and Sunscreens  
*M. Barratt, J. Bartolone, A. Lukin, S. Hawkins, H. Garcia, E. Lim, G. Raman, S. Wagh, K.Schilling, USA, Mexico, Indonesia, and India*
- PP41 *M. Barratt, J. Bartolone, A. Lukin, S. Hawkins, H. Garcia, E. Lim, G. Raman, S. Wagh, K.Schilling, USA, Mexico, Indonesia, and India*  
Differential Effects of Tyrosine on Melanogenesis in Caucasian and Black Melanocytes  
*Kelly H. Zhang, Prasanna Satpute, Allan Burger, Thomas Januario, Uma Santhanam, USA*
- PP42 *Kelly H. Zhang, Prasanna Satpute, Allan Burger, Thomas Januario, Uma Santhanam, USA*  
Cellular Structure and Location of PPO Activities in *Marinomonas mediterranea*, a Melanogenic Marine Bacterium  
*Eva Fernández, Patricia Lucas, Francisco Solano, Antonio Sanchez-Amat, Spain*
- PP43 *Eva Fernández, Patricia Lucas, Francisco Solano, Antonio Sanchez-Amat, Spain*  
Fine Structure of Invertebrate Pteridine-Containing Organelles Taken By the Rapid Freezing and Freeze-Substitution Method  
*Sumiko Negishi, Japan*

#### **Control of Hyper/Hypopigmentation**

- PP44 *Mitchell Klausner, Patricia Neal, Bridget Breyfogle, Patrick Hayden, Hisashi Torishima, Joseph Kubilus, USA and Japan*  
Melanoderm™, an Epidermal Tissue Model Containing Functional Melanocytes
- PP45 *Kang Tae Lee, Jeong Ha Kim, Jun Hong Park, Hee Dae Jeon, Kyu Wang Hwang, South Korea*  
Inhibitory Effects of Ramulus Mori Extracts on Melanogenesis
- PP46 *Jamal Farooqui, Ashish Budev, Amy Hong, Steven Boyce, James Nordlund, USA*  
Proopiomelanocortin Converting Enzymes Prohormone Convertases 1 and 2 (PC1 and PC2) Are Expressed in Normal Human Epidermis and Epidermal Cells in Culture
- PP47 *Juichiro Nakayama, Aki Watanabe, Ayako Nagano, Tetsuya Koga, Katsuhiko Tsukamoto, Shinji Shimada, Japan*  
Various Vitamin D<sub>3</sub> Analogues Can Inhibit Growth of Human Melanocytes In Vitro
- PP48 *Naoko Matsunaga, Victoria Virador, Jun Matsunaga, Zalfa A. Abdel-Malek, Vincent J. Hearing, USA*  
Expression Patterns of Melanogenic Enzymes and Growth Factors in Normal Human Skin and Various Hyperpigmented Lesions
- PP49 *Ho-sik Rho, Soo-mi Ahn, Dong-il Jang, Duk-chul Hwang, Hyun-jun Kim, Jung-yeon Kim, Byung-guen Chai, Seong-joon Moon, Jinseon Lee, Young-cheol Sim, South Korea*  
A Novel Synthetic Compound With Antimelanogenic Property
- PP50 *Kiyofumi Egawa, Toshiro Kageshita, Yumi Honda, Tomomichi Ono, Japan*  
The Pigmented Wart: Human Papillomavirus Type-Specific Activation of Melanocytes In Vivo
- PP51 *Kotaro Yoshimura, Kiyonori Harii, Takao Aoyama, Tatsuji Iga, Japan*  
Experience of a Strong Bleaching Treatment For Skin Hyperpigmentation in Orientals

#### **Developmental Biology of Pigment Cells**

- PP52 *Tomohisa Hirobe, Hiroyuki Abe, Shosuke Ito, Kazumasa Wakamatsu, Japan*  
Stimulation of the Proliferation and Differentiation of Mouse Pink-Eyed Dilution Melanocytes By Excess Tyrosine in Serum-Free Primary Culture
- PP53 *Motoko Nakagoshi, Hiroshi Sawada, Shin-ichiro Takikawa, Japan*  
Abnormality of Pteridine Granules and Pteridine Metabolism in the Permanent Larvae of the Scorpion Fly, *Panorpa japonica*

- PP54 Directed Melanoblast Migration By Local SCF/c-KIT Induced Actin Polymerization  
*Marie-Claude Jacquier, Christoph von Ballestrem, Bernhard Wehrle-Haller, Switzerland*
- PP55 Comparison of the Roles of PAX-3 and Mitf in Melanocyte Development  
*Thomas J. Hornyak, Daniel J. Hayes, Edward B. Ziff, USA*
- PP56 NACRE Encodes a Zebrafish Microphthalmia-Related Protein That Regulates Neural Crest-Derived Pigment Cell Fate  
*James A. Lister, Christie P. Robertson, Thierry Lepage, Stephen L. Johnson, David W. Raible, USA*
- PP57 Microenvironmentally Accordant Expression of Cadherins Associated With Melanocyte Migration and Differentiation  
*Emi K. Nishimura, Hisahiro Yoshida, Takahiro Kunisada, Yoshiki Miyachi, Shin-Ichi Nishikawa, Japan*
- PP58 Goldfish Erythrophoroma (GEM) 81-Cell Line GEM81 Express the Receptors For Endothelin and CSF-1.  
*Hirotake Ono, Takayuki Tobita, Toyoko Akiyama, Jiro Matsumoto, Japan*
- PP59 Further Analysis of Melanophore Lineage Using GFP Overexpression in *Xenopus laevis*  
*Toshihiko Fukuzawa, Japan*
- PP60 Fibronectin Can Proliferate and Differentiate Melanoblasts in Cultured Mouse Neural Crest Cells With Stem Cell Factor  
*N. Takano, Y. Kawa, M. Ito, M. Asano, T. Kushimoto, Y. Kubota, H. Ono, M. Mizoguchi, Japan*
- PP61 Immortal Cell Lines of Melanocyte Precursors in Different Developmental Stages  
*Yoko Kawa, Takako Baba, Hirotake Ono, Masaru Ito, Mari Asano, Nagako Takano, Shiho Ooka, Yasuo Kubota, Masako Mizoguchi, Japan*
- PP62 Development of Chromatophores in the Changeable Light-Filter of the Fish Cornea  
*V.P. Gnyubkina, S.L Kondrashev, Russia*
- PP63 In Vitro Culture of Melanocytes of Quail BH (Black at Hatch) Mutant Embryos  
*Tohru Niwa, Akira Nakamura, Nobuyoshi Shiojiri, Japan*
- PP64 Cloning and Expression Patterns of *Xenopus* Pigmentation Genes  
*Mayuko Kumasaka, Shigeru Sato, Hiroaki Yamamoto, Japan*
- PP65 Derivation of Melanocytes From Embryonic Stem Cells in Culture  
*Toshiyuki Yamane, Shin-Ichi Hayashi, Masako Mizoguchi, Hidetoshi Yamazaki, TakahiroKunisada, Japan*
- PP66 Microphthalmia-Associated Transcription Factor Isoforms Enriched in Eyes and Cochleae  
*Kazuhisa Takeda, Ken-ichi Watanabe, Tetsuo Udono, Hideo Saito, Ken-ichi Yasumoto, Shigeki Shibahara, Japan*
- PP67 Morphological Difference Between Yellow and Red Xanthophores in Japanese Newts  
*Kumi Matsui, Ikuo Miura, Minoru Takase, Masahisa Nakamura, Japan*
- PP68 Melanocytes In Vivo and in Culture: Survival, Migration and Proliferation  
*Siobhán A. Jordan, Ian J. Jackson, UK*
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*Lionel Larue, Patrick Pla, Florence Bernex, Sylvie Dufour, Jean Salamero, Reinhard Fässler, Jean-Jacques Panthier, Jean Paul Thiery, Alice Beauvais-Jouneau, France and Sweden*

### Genetics of Pigmentation

- PP70 Albinism Caused By Defective Tyrosinase Genes in the Medaka Fish  
*Akihiko Koga, Hiroshi Hori, Japan*
- PP71 Angelman Syndrome Plus Oculocutaneous Albinism Type 2 (OCA2) Associated With a P Gene Missense Mutation  
*Kazuyoshi Fukai, Naoki Oiso, Masamitsu Ishii, Shinji Saito, Takahito Wada, Osamu Narazaki, Japan*
- PP72 Evolution and Regulation of the Tyrosinase Family: From Mouse to Fugu  
*Friedrich Beermann, Agnès Hunziker, Switzerland*
- PP73 Genetic Control of Sooty Yellow Pigmentation in KK-AYMice  
*Jun-ichi Suto, Kazumasa Wakamatsu, Harumichi Yamanaka, Shosuke Ito, Kenji Sekikawa, Japan*
- PP74 Genomic Analyses of Tyrosinase-Related Oculocutaneous Albinism in Japan  
*Yasushi Tomita, Eriko Nakamura, Yoshinori Miyamura, Jun Matsunaga, Michihiro Kono, Hiroshi Shimizu, Japan*
- PP75 CDKN2A Mutation Analysis in 17 Italian Melanoma-Prone Families

- Paola Grammatico, Francesco Binni, Caterina Catricalà, Barbara Grammatico, Carmelilia De Bernardo, Laura Eibenschutz, Giuseppe Del Porto, Italy*
- PP76 Analysis of the R402Q Polymorphism Associated With OCA1B.  
*Richard A. King, Jacy E. Pietsch, James P. Fryer, William S. Oetting, USA*
- PP77 Molecular Analysis of Genes Associated With Albinism in Humans  
*William S. Oetting, Jacey E. Pietsch, Richard A. King, USA*
- PP78 Spectrum of Mutation at the Melanocyte-Stimulating Hormone Receptor (MC1R): The Genetics of Red Hair in Caucasians  
*Andy Urquhart, Eileen Grimes, Penelope Noake, Lindsay Dixon, Alex Lowe, UK*
- PP79 Relationship Between Skin Photoageing and Phototype: Preliminary Results of the SU.VI.MAX. Cohort  
*Christiane Guinot, Denis Malvy, Paul Preziosi, Loïc Vaillant, Pilar Galan, Erwin Tschachler, Serge Herberg, France and Austria*
- PP80 Age-Related Reference Values of Skin Colour in Caucasian and Japanese Healthy Women According to Skin Site  
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- PP81 Relationship Between Vitamin D Status and Skin Phototype in General Adult Population  
*Denis Malvy, Christiane Guinot, Paul Preziosi, Pilar Galan, Marie-Claire Chapuy, Mohamed Maamer, Solange Arnaud, Pierre J. Meunier, Serge Herberg, Erwin Tschachler, France and Austria*
- PP82 Coat Colour Variation in Cattle Caused By Mutations in the MC1-R and c-KIT Genes  
*Helge Klungland, Hanne Gro Olsen, Dag Inge Våge, Norway*

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*Annika Karlsson, Samuel Svensson, Sweden*
- PP84 Endogenous Production of Nitric Oxide Can Alter the Directed Transport of Pigment Organelles in *Xenopus laevis* Melanophores  
*Harriet Öberg, Annika Karlsson, Tommy Sundqvist, Samuel Svensson, Sweden*
- PP85 Epithelial/Mesenchymal Influences on Cutaneous and Ocular Melanocyte Proliferation and Pigmentation  
*Linda Smith-Thomas, Susan Hedley, Jennifer Phillips, Rebecca Dawson, Mark Wagner, Charik-lia Balafa, Sheila Mac Neil, UK*
- PP86 Protein Tyrosine Phosphatases in Normal and Malignant Human Melanocytes  
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*Achim H.-P. Krauss, Licheng Shi, Clayton S. Spada, John W. Regan, David F. Woodward, USA*
- PP88 Melatonin: Is There a Physiological Role in Melanocyte Function Regulation?  
*Ana Luísa Kadekaro Martins de Almeida, Luciana de Sousa Andrade, Victoria Virador, Vincent Hearing, Mark Douglas Rollag, Ana Maria de Lauro Castrucci, Brazil and USA*
- PP89 Insulin Receptors and Insulin Signaling Pathways in Cloudman S-91 Mouse Melanoma Cells  
*Adriana Luchs, Ana Maria de Lauro Castrucci, Brazil*
- PP90 Adrenoceptors in Normal Human Melanocytes and SK-MEL 23 Human Melanoma Cells  
*Ana Cristina Scarparo, Alice Reis de Oliveira, Maria Aparecida Visconti, Ana Maria de Lauro Castrucci, Brazil*
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*Satoshi Suzuki, Yutaka Ota, Toru Imamura, Japan*
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- PP93 Relationship Between the Chemotactic Activity of Melanocytes to Dermal Papilla Cells and the Senile Graying of Hair  
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- Masaki Yoshida, Toshio Horikoshi, Hideyo Uchiwa, Japan
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*Eun-Jung Jin, Giselle Thibaudeau, USA*
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*Bryan B. Fuller, Michael Drake, Faisal Chaudhry, Amy Jeter, Cercre Church, Deborah Spaulding, Amy Risling, USA*
- PP97 Melanogenic Activity of Estradiol in Human Melanoma Cells  
*Maria Silvia Machado Vieira Sarti, Ana Maria de Lauro Castrucci, Brazil*
- PP98 The Effect of PKA Pathway Activation on Cell Cycle Modulation in Melanoma Cells  
*Elizabeth Alves Pereira, Robert Ivan Schumacher, Ana Maria de Lauro Castrucci, Brazil*
- PP99  $\alpha$ -Melanocyte Stimulating Hormone Induced Activation of Melanocortin Receptor 1 (MC1-R) Can Be Modulated By Estrogen  
*Janis Ancans, Jun Yukitake, Anthony J Thody, UK*
- PP100 Desacetyl  $\alpha$ -MSH is a Partial Agonist at the Human MC1-R  
*Jun Yukitake, Marina Tsatmali, Janis Ancans, Anthony J. Thody, UK*
- PP101  $\alpha$ -MSH Induces and Inhibits Nitric Oxide Production in Human and Mouse Melanoma Cells  
*Marina Tsatmali, Janis Ancans, Anthony J. Thody, UK*
- PP102 Expression of the MC1 Receptor Gene in Normal and Malignant Human Melanocytes. A Semiquantitative RT-PCR Study  
*Béatrice Loir, Cristina Pérez Sánchez, Ghanem Ghanem, José Antonio Lozano, José Carlos García-Borrón, Celia Jiménez-Cervantes, Spain and Belgium*
- PP103 The Early Genes NGFI-B and BRG1 Are Regulated By  $\alpha$ MSH in B16 Mouse Melanoma Cells  
*Cristina Pérez, Celia Jiménez-Cervantes, José Carlos García-Borrón, Spain*
- PP104 Autocrine Expression and Regulation of the TGF $\beta$ 1 and POMC Genes in B16 Mouse Melanoma Cells  
*Cristina Pérez, Celia Jiménez-Cervantes, José Antonio Lozano, Francisco Solano, José Carlos García-Borrón, Spain*
- PP105 Expression and Function of Ryanodine Receptors in Human Melanocytes  
*Sungbin Im, Hee-Young Kang, Nam-Soo Kim, Chin-Ok Lee, Ji-Yeoun Lee, Won-Hyoung, South Korea*
- PP106 B-RAF Mediates the cAMP Activation of MAPK in B16 Melanoma Cells  
*Roser Buscà, Patricia Abbe, Frédéric Mantoux, Edith Abordam, Alain Eychène, Jean-Paul Ortonne, Robert Ballotti, France*

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*Bhanu Iyengar, India*
- PP108 Image Analysis of Seasonal Pigmentation Changes in Dyschromatosis Symmetrica Hereditaria Patients  
*Yoshinori Miyamura, Michihiro Kono, Eriko Nakamura, Yasushi Tomita, Japan*
- PP109 Abnormalities in Epidermal Pigmentation Following Long-Term Cessation of Repeated Suberythemal UVB Irradiation in Hairless Mice  
*Kazuhisa Maeda, Kenji Kitamura, Japan*
- PP110 The Effect of Oligonucleotide Size and 5% Phosphate on Cellular Uptake and Stimulation of Melanogenesis  
*Mark S. Eller, Ina M. Hadshiew, Frank P. Gasparro, Barbara A. Gilchrest, USA*
- PP111 Ultraviolet B-Radiation Induces Apoptosis of Melanocytes By Upregulation of p53 and BAX, But Not By Downregulation of BCL-2  
*Kyoung Chan Park, Young Gull Kim, Hye Jin Kim, Kyu Han Kim, South Korea*
- PP112 Melanocytes: A Neural System For Photoreception  
*Bhanu Iyengar, India*
- PP113 Photoprotection By Melanin Against the Formation of DNA Photoproducts  
*Nobuhiko Kobayashi, Taketsugu Tadokoro, Wilfred D. Vieira, Naoko Matsunaga, Minao Furumura, M. Lynn Lamoreux, Zalfa Abdel-Malek, Kazumasa Wakamatsu, Shosuke Ito, Vincent J. Hearing, USA and Japan*
- PP114 Reconstructed Epidermis With and Without Melanocytes: Do Low Phototype Melanocytes Protect Against Free Radicals?

- PP115 *M. Cario-André, S. Briganti, M. Picardo, J. Ginestar, Y. Gall, A. Taïeb, France and Italy*  
Specific Induction of GADD 45 in Human Melanocytes and Melanoma Cells Following UVB Irradiation  
*Rémy Pedeux, Karine Lefort, Cyrille Cuénin, Karine Kellner, Ulrich Cortes, Jean-François Doré, Hisayoshi Nakazawa, France*
- PP116 UVB-Control of Melanogenesis Via Regulation of Neutral Endopeptidase (NEP), the Enzyme Responsible For the Degradation of  $\alpha$ -MSH  
*Edith Aberdam, Bernard Mari, Patrick Auberger, Jean-Paul Ortonne, Robert Ballotti, France*

### **Melanoma: Ultraviolet Light, Diagnosis and Treatment**

- PP117 Hereditary Cutaneous Melanoma in Sweden  
*Johan Hansson, Carl-Mikael Lindholm, Göran Lundell, Eva Månsson-Brahme, Sweden*
- PP118 Genetic Analysis of N-RAS and CDKN2A in Sporadic Primary Melanomas and Their Metastases  
*Anton Platz, Sofia Karsberg, Eva Grafström, Boel Ragnarsson-Olding, Ulrik Ringborg, Sweden*
- PP119 Quantitative Analysis of Tyrosinase Transcripts From Melanoma Cells in Blood  
*Kerstin Årstrand, Malin Johansson, Bertil Kågedal, Eva Pisa, Vuokko Törmänen, Sweden*
- PP120 Quantitative Analysis of S100 $\beta$ -Protein Transcript in Melanoma Cells and T-Lymphocytes  
*Anita Kullman, Bertil Kågedal, Sweden*
- PP121 Isolation of RNA in Blood For Quantitative Analysis of Melanoma Cell Transcripts: A Comparison of Three Methods  
*Liselotte Lenner, Malin Johansson, Bertil Kågedal, Sweden*
- PP122 Quantitation of Tyrosinase and TRP-2 Transcripts in Blood By Real-Time PCR  
*Malin Johansson, Kerstin Årstrand, Bertil Kågedal, Sweden*
- PP123 Mechanism of Induction of Melanoma Metastases and Its Regulation By Immune System-Adrenal Axis Feedback Loop  
*E.M. Link, K. Flanagan, P.J. Blower, UK*
- PP124 Melanogenic Gene-Transfer Enhances Melanoma Killing Effect Using Boron Neutron Capture Therapy  
*Hirofumi Kondoh, Katsura Yamaguchi, Junichi Hiratsuka, Yoshinobu Fukumori, Yutaka Mishima, Japan*
- PP125 Serum Neuron-Specific Enolase in Melanoma Patients  
*M.R. Ros-Bullón, P. Sánchez-Pedreño, J.H. Martínez-Liarte, Spain*
- PP126 Failure to Identify the Sentinel Node (SN), Incorrect Evaluation of SN Tumor Status and Regional Melanoma Recurrence  
*D.-R. Wen, R.A. Turner, D.L. Morton, A.J. Cochran, USA*
- PP127 Intraoperative Identification of Sentinel Lymph Node in Japanese Patients With Acral Lentiginous Melanoma  
*Naoya Yamazaki, Akifumi Yamamoto, Takashi Wada, Masashi Ishikawa, Sachiko Noro, Japan*
- PP128 4-S-Cysteaminylphenol Oxidation Product, Dihydro-1, 4-Benzothiazine-6, 7-Dione, is a Potent SH Scavenger  
*Katsutoshi Hasegawa, Kazumasa Wakamatsu, Hidehiko Akiyama, Shigeki Inoue, Shosuke Ito, Japan*

### **Molecular Biology of Pigmentation and Pigment Cells**

- PP129 Synergistic Effects of Androgen and PKC on Tyrosinase Activities in Human Genital Melanocytes  
*Taketsugu Tadokoro, Satoshi Itami, Kunihiko Yoshikawa, Vincent J. Hearing, Japan and USA*
- PP130 Characterization of the Promoter Region of the Human Melanocortin-1 Receptor (MC1R) Gene  
*Osamu Moro, Ritsuro Ideta, Oji Ifuku, Japan*
- PP131 Mutational Analysis of the Modulation of Tyrosinase By Tyrosinase-Related Proteins 1 and 2 In Vitro  
*Prashiela Manga, Kiyoshi Sato, Liyan Ye, Friedrich Beermann, M. Lynn Lamoreux, Seth J. Orlow, USA and Switzerland*
- PP132 The Paracrine Mechanism of Accentuated Epidermal Pigmentation in Dermat Ofibroma: Role of Fibroblast-Derived Melanogenic Cytokines

- PP133 *Etsuko Kurishima, Izumi Manaka, Satsuki Kadono, Makoto Kawashima, Genji Imokawa, Japan*  
Autosomal Albino Chicken Mutation ( $c^a/c^a$ ) Deletes Six-Nucleotides at a Copper-Binding Site of the Tyrosinase Gene  
*Takayuki Tobita-Teramoto, Gi Young Jang, Katsutoshi Kino, Donald Wayne Salter, John Brumbaugh, Toyoko Akiyama, Japan, South Korea, and USA*
- PP134 Endothelins Induced Proliferation and Differentiation of Melanocytes in Black Silky Chickens Via Endothelin Receptor B2  
*Toyoko Akiyama, Takayuki Tobita-Teramoto, Katsutoshi Kino, Japan*
- PP135 Transcriptional and Post-Transcriptional Regulation of Pigmentation-Related Genes During Differentiation of Human Melanocytes  
*Denise J. Schwahn, Estela E. Medrano, USA*
- PP136 The Human Melanocyte as a Particular Target For UVA Radiation and an Endpoint For Photoprotection Assessment  
*Catherine Agapakis-Caussé, Jean-Philippe Belaidi, Jean-Roch Meunier, Philippe Perez, Laurent Marrot, France*
- PP137 Characterisation of a Melanocyte-Derived RT-PCR Inhibitor  
*Jürgen Bach, Leopold Eckhart, Erwin Tschachler, Austria and France*
- PP138 TPA Stimulates Melanogenesis By Increasing Microphthalmia Expression Without Affecting PAX 3 Expression  
*Sharon Prince, Susan H. Kidson, South Africa*
- PP139 Single-Cell cDNA Library-Based Studies of Pigment Cells From the Zebrafish  
*Nathan B. Parker, Roger MacKinnon, Kenneth A. Mason, USA*
- PP140 Functional Phylogenetic Analyses of the MITF Gene  
*Ichiro Yajima, Shigeru Sato, Colin R. Goding, Hiroaki Yamamoto, Japan and UK*
- PP141 Pigment Pattern Genes That Act as Tumor Modifiers in Melanoma of Xiphophorus  
*Manfred Scharfl, Joachim Altschmied, Heidrun Gutbrod, Brigitta Wilde, Alexander Froschauer, Cornelia Körting, Jean-Nicolas Volf, Germany*
- PP142 Regulatory Mechanisms of the Ascidian Tyrosinase Gene Expression in the Developing Brain  
*Reiko Toyoda, Shigeru Sato, Kazuho Ikee, Takashi Gojobori, Takaharu Numakunai, Hiroaki Yamamoto, Japan*
- PP143 Expressions of Amino Acid Transporter Genes in Cultured Malignant Melanoma Cell Lines  
*Yoshihisa Noguchi, Hiroyuki Hara, Takafumi Morishima, Japan*
- PP144 TFE3 and TFEB as Transcriptional Activators of Tyrosinase and TRP1 Genes  
*Carole Verastegui, Corine Bertolotto, Karine Bille, Patricia Abbe, Jean Paul Ortonne, Robert Ballotti, France*

#### **Ocular/Extracutaneous Melanin and Melanogenesis**

- PP145 Chloroquine Treatment Causes Depigmentation of the Retinal Pigment Epithelium (RPE) in Rats By Blocking De Novo Synthesis of Melanin in Lysosomes  
*Ulrich Schraermeyer, Klaus Heimann, Germany*
- PP146 Microphthalmia in C57BL/6J-MITF<sup>mi<sup>+</sup>rw</sup>/MITF<sup>mi<sup>+</sup>rw</sup> Mice  
*Scott Hughes, Xiao Quan, Ian Russell, M. Lynn Lamoreux, USA*
- PP147 Photoprotective Effect of Opiomelanins 'In Vivo'  
*Emanuela Camera, Luciana Mosca, Giovanni Leone, Walter Marmo, Mauro Picardo, Maria Anna Rosei, Italy*
- PP148 5-S-Cysteinyl-dopa as a Diagnostic Tumor Marker For Uveal Melanoma  
*Hiroshi Goto, Tomoaki Ishikawa, Masahiko Usui, Kazumasa Wakamatsu, Shosuke Ito, Japan*

#### **Vitiligo and Related Pigmentary Disorders**

- PP149 Effectiveness of bFGF Peptide(s) to Treat Vitiligo and Reversible Tanning of Normal Skin  
*A. Ramaiah, D. Parsad, J.S. Hussain, M.A. Waheed, P. Ramanarao, M.G. Shankarsa, V.M. Amarnath, India*
- PP150 Effectiveness of Combination of Ginkgo Biloba and Topical Mometasone to Treat Vitiligo  
*D. Parsad, R. Saini, India*
- PP151 Role of Antioxidants in the Survival of Normal and Vitiliginous Avian Melanocytes

- Roger R. Bowers, Yolanda Gonzalez, Sherri Buckner, Felipe Ruiz, USA
- PP152 B-Cell Epitopes on Tyrosinase Which are Recognised By Autoantibodies From Patients With Vitiligo  
E.A. Waterman, E.H. Kemp, S. Mac Neil, D.J. Gawkrödger, P.F. Watson, A.P. Weetman, UK
- PP153 Elevated Levels of Sepiapterin in the Epidermis of Patients With Vitiligo  
Wayne D. Beazley, Angela Panske, Karin U. Schallreuter, UK and Germany
- PP154 Partial Unilateral Lentiginosis: Report of Thirteen Cases  
Hoon Kang, Young Min Park, Sung Woo Choi, South Korea
- PP155 Translocation of Melanosome Proteins From the Trans Golgi Network to the Premelanosome Dissected Using Genetic Forms of Hermansky–Pudlak Syndrome  
Raymond E. Boissy, Yang Zhao, USA
- PP156 Helium-Neon Laser Treatment Induces Repigmentation in Segmental-Type Vitiligo  
Chieh-Shan Wu, Hsin-Su Yu, Ying-Hsien Kao, Taiwan, ROC
- PP157 Role of Keratinocyte-Derived Cytokines and Their Receptors in Hypopigmentation in Vitiligo vulgaris  
Reiko Kitamura, Katsuhiko Tsukamoto, Shinji Shimada, Genji Imokawa, Japan
- PP158 Khellin Combined With UVA Stimulates Proliferation and Melanin Synthesis in Human Melanocytes and Melanoma Cells  
Susan Kidson, Gadija Carlie, Gail Todd, South Africa
- PP159 The Changes of Serum sICAM-1 After Systemic Steroid Treatment in Vitiligo  
Kyoung Chan Park, Jong Seong Ahn, Ji Hwan Hwang, Sang Duk Kim, Jeong Gu Lim, Kyu Han Kim, South Korea
- PP160 Epstein–Barr Virus Infection in Patients With Vitiligo  
Pearl E. Grimes, Tarik Elkadi, J. Sanders Savall, USA
- PP161 Identification of Melanocyte-Specific T Cells From Vitiligo Patients By Flow Cytometry  
Rebat M. Halder, Robert N. Tackey, Curla S. Walters, USA
- PP162 The Fate of Basal Melanocytes in Lepromatus Leprosy  
Ram Chandra Shukla, India

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## Other Events at the XVII<sup>th</sup> IPCC

### Asian Skin Pigmentation - Cosmetic and Clinical Aspects

November 5<sup>th</sup>

For more information, please contact Dr. G Raman at [Govindarajan.raman@unilever.com](mailto:Govindarajan.raman@unilever.com).

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|---------------|---|
| 8:30 – 9:00   | Opening   |
| 9:00 – 9:45   | Overview of Pigmentation Biology: Prof Hearing              |
| 9:45 – 10:30  | Chemistry, Regulation and Photoprotection: Prof Prota       |
| 10:30 – 10:45 | Break:  |
| 10:45 – 11:30 | Clinical Pigmentary disorders in Asians: Prof Rui Fernandez |
| 11:30 – 12:15 | Cosmetic Pigmentary problems: Dr. Kameyama                  |
| 12:15 – 1:00  | Medical treatment methods: Prof W. Westerhof                |
| 1:00 – 2:00   | Lunch:  |
| 2:00 – 2:45   | Surgical treatment methods: Prof Malakar                    |
| 2:45 – 3:30   | Importance of UV-Prof Ichihashi                             |
| 3:30 – 4:00   | Measurement of skin color: Prof Westerhof                   |
| 4:00 – 4:30   | Sunscreens and photoprotection: A sunscreen company         |
| 4:30 – 4:45   | Tea:  |
| 4:45 – 6:00   | Panel Discussion:   |

## **Skin Pigmentation Workshop - Continued.**

- 6:00 – 7:00 Posters:  
Skin color measurement  
Clinical methods in the cosmetic industry  
Tan protection methods, sunscreen delivery detection methods  
Basic research - Posters from invited speakers and others
- 7:00 – 9:00 Drinks and Dinner:

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## **Satellite Meeting 3 (International Pigment Cell Conference): *Cellular and Molecular Control of Pigment Cell Development***

**Thursday, November 4, 1999  
Nagoya Congress Center, Nagoya, Japan: Room 224 (Building 2)**

**Organizers: Dorothy Bennett, Shin-Ichi Nishikawa, Randall Morrison  
*International Federation of Pigment Cell Societies,  
Special Interest Group on Pigment Cell Development***

We gratefully acknowledge major sponsorship by:

**JOHNSON & JOHNSON and NOVARTIS**

The aim of this meeting is to provide a forum to bring together both the foremost scientists and active younger researchers in pigment cell development, with presentations of cutting-edge research and time for discussion of current ideas and research directions. All those interested, whether working in the field or not, are cordially invited to attend.

**Attendance is free of charge** for all those registered to attend the IPCC. Only for participants not registered for the IPCC, there will be a small registration fee of 3,000 yen for this Satellite Meeting, which may be sent to Dr Wakamatsu (Secretary-General, IPCC). In this case, please use the standard IPCC registration form (Form A) to make this payment, stating that you wish to attend SM3 only. Payment can also be made at the door.

## **PROGRAM**

9.00-9.10 Opening remarks

### ***Morning Session: Extracellular and cytoplasmic controls***

Chair, **Lynn Lamoreux**

Invited Speakers

- 9.10-9.30 **Jim Weston** The SCF/Kit signaling pathway in survival, dispersal and differentiation of murine melanocyte precursors
- 9.35-9.55 **Randy Morrison** Transition from the embryonic to adult pigment pattern in zebrafish
- 10.00-10.20 **Shin-Ichi Nishikawa** Altered melanocyte development in transgenic mice expressing SCF in epidermis



- 10.25-10.45 **Tomohisa Hirobe** The agouti gene in regulation of the proliferation and differentiation of mouse epidermal melanocytes  
10.50-11.15 BREAK

Chair, **Shin-Ichi Nishikawa**

Platform Speakers

- 11.15-11.25 **Emi Nishimura** Microenvironmentally accordant expression of cadherins associated with melanocyte migration and differentiation  
11.30-11.40 **Lionel Larue** A novel model to study the dorso-lateral migration of melanoblasts  
11.45-11.55 **Siobhán Jordan** Melanocytes in vivo and in culture: survival, migration and proliferation  
12.00-12.20 **Berni Wehrle-Haller** Directed melanoblast migration by local SCF/c-Kit induced actin polymerization (With Green Fluorescent Protein videos)

12.25-12.40 GENERAL DISCUSSION

12.40-2.00 LUNCH

### *Afternoon Session: Nuclear Controls*

Chairs, **David Fisher & Dorothy Bennett**

Invited Speakers

- 2.00-2.20 **David Fisher** Microphthalmia and transcriptional control of melanocyte differentiation  
2.25-2.45 **Colin Goding** Mitf and Tbx2  
2.50-3.10 **Heinz Arnheiter** The role of Mitf in pigment cell development in eye and neural crest  
3.15-3.45 BREAK

Chair, **Colin Goding**

Platform Speakers

- 3.45-3.55 **Tom Hornyak** Comparison of the roles of *Pax3* and *Mitf* in melanocyte development  
4.00-4.10 **Kazuhisa Takeda** Microphthalmia-associated transcription factor isoforms enriched in eyes and cochleae  
4.15-4.25 **James Lister** *Nacre* encodes a zebrafish microphthalmia-related protein that regulates neural crest-derived pigment cell fate  
4.30-4.40 **Friedo Beermann** Evolution and regulation of the tyrosinase family: from mouse to *Fugu*  
4.45- General Discussion/ Concluding remarks/ Adjourn to restaurants, bars etc.

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### **Bibliography :**

The Bibliography published in this issue covers the period May, 1999 through July, 1999. 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 may be arbitrary and we urge you to read through all categories to make sure you don't miss any pertinent to your field. We have attempted to highlight any publications which include a member of the PASPCR with a star (*sorry if we missed you but let us know and you'll get a free marked repeat in the next issue*).

## MELANINS, MELANOGENS & MELANOGENESIS

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## MSH, POMC, GROWTH FACTORS & RECEPTORS

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