International Federation of Hair Research Societies

NEWSLETTER

Volume 2, No. 2

Message from the IFHRS Chair & Executive Secretary

Wilma F. Bergfeld, MD, IFHRS Chair, BERGFEW@ccf.org
Victoria Ceh, MPA, IFHRS Executive Secretary, vceh@americanhairresearchsociety.org





Victoria Ceh

On behalf of the IFHRS, we wish you and your family, staff, and colleagues happy holiday greetings! We extend best wishes for 2022!

There have been several developments since our last newsletter and the IFHRS meeting on September 9, 2021, via Zoom.

WORLD CONGRESS FOR HAIR RESEARCH

- The next World Congress for Hair Research (WCHR) that is taking place in Melbourne, Australia, has been rescheduled from April 2022 to **November 18-22, 2022**. Information about the Congress can be found in the Australasian section in this newsletter and on the Congress website at hair2022.org. We hope to see you there!
- The 2024 WCHR has been announced and is scheduled for **April 6-9, 2024, in Dallas, Texas, USA**. The American Hair Research Society is the hosting organization.
- The rotation of the WCHR will follow a 4-hubs approach rotating among the European Hub, the Americas Hub, the Australasian Hub, and the Open Hub. This new hub-rotation will start in 2028 in Europe, followed by 2030 Open Hub.

WEBSITE AND LOGO

- As we become more formally organized, it was agreed to have a unified web presence. The IFHRS logo as seen on this page has been unanimously approved.
- A website for the IFHRS is under development with the generous technical and financial support of the Ukrainian Hair Research Society.

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Message from the IFHRS Chair & Executive Secretary

PUBLICATIONS

• The IFHRS agreed that its member societies will continue to prepare detailed reports on their annual national meetings with an overview of each session for inclusion in the IFHRS Newsletter and for the new IFHRS website. Exploratory efforts are underway in regards to which journal to publish the proceedings from the 2022 WCHR.





American Hair Research Society

Antonella Tosti, MD, AHRS President ATosti@med.miami.edu | www.americanhairresearchsociety.org Victoria Ceh, MPA, AHRS Executive Director vceh@americanhairresearchsociety.org

ICD-11 WEBINAR HOSTED BY ILDS & THE WHO

The AHRS is a member of the International League of Dermatological Societies (ILDS). The ILDS is an organization comprised of societies from more than 80 countries. Among other roles, it is the organizing body of the World Congress of Dermatology. It also liaises with the World Health Organization (WHO) on matters. The AHRS was made aware of the following important webinar that we wish to share with our international colleagues who may be interested in attending. It is a webinar hosted by the WHO and the ILDS for dermatology on the launch of the International Classification of Diseases 11th Revision (ICD-11). Details are as follows:



ICD-11 Webinar for Dermatology
Tuesday/January 25, 2022
14:00 (2:00PM) CET (Central European Time)

If you are interested, please go the following link for the program outline and login instructions: https://www.who.int/news-room/events/detail/2022/01/25/default-calendar/icd-11-webinar-for-dermatology.

From the International League of Dermatological Societies:

"The ILDS has been working in partnership with the World Health Organization (WHO) to develop, field test, and amend the dermatological content of both the ICD-11 MMS and the ICDD to ensure they meet the needs of health care professionals around the world in recording accurately the skin diseases of their patients.

In celebration of ICD-11 becoming the legally mandated global health data standard on 1 January 2022, the ILDS and the WHO would like to invite interested parties to join a webinar about ICD-11 on 25 January 2022 at 14:00 CET.

The webinar will be hosted by WHO. Dr. Robert Jakob, Team Leader for Classifications and Terminologies (ICD, ICF, ICHI) at the World Health Organization will give an introduction to ICD-11. Dr. Robert Chalmers, Immediate Past Co-Chair of the WHO ICD-11 Dermatology Topic Advisory Group and Dermatology Representative of the WHO ICD Medical and Scientific Advisory will then talk in more detail about the ICD-11 Classification of Skin Diseases, with which he has been involved since the start of the ICD Revision Project in 2009. In the Q&A session which follows, we will be joined by Professor Jonathan White, who has taken over as Dermatology Representative of the WHO ICD Medical and Scientific Advisory Committee and external advisor on disease classification for the ILDS."

PROCEEDINGS FROM TWO AHRS SCIENTIFIC MEETINGS

On pages 6–13, we are pleased to include the proceedings from two meetings: our AHRS session held at RADLA 2021 in April 2021 and our scientific session held as an ancillary meeting of the Society for Investigative Dermatology Annual Meeting in May 2021. Both were held as virtual meetings.



American Hair Research Society

SECOND HALF OF 2021

The second half of the year was busy with educational meetings. The AHRS participated via a pre-recorded session—"Therapeautics in Alopecia: On Demand"—as part of the September 16-17, 2021, Virtual TeraCILAD. It was a very interesting session with talks on updated treatments for LPP, FFA, AA, FPHL, and AGA. We are grateful to CILAD for including us and to our esteemed faculty that included Drs. Isabella Doche, Maria Hordinsky, Rodrigo Pirmez, Maria Eugenia Cappetta, Antonella Tosti, Daniel Asz Sigall, and Gisela D'Atri.

AMERICAN HAIR RESEARCH SOCIETY
NORTH TOENTRAL SOUTH AMERICA

AHRS Scientific Session

Latin American Edition

On October 1, 2021, the AHRS hosted a live Zoom webinar entitled "AHRS Scientific Session: Latin American Edition," which was organized and moderated by Drs. Isabella Doche and Maryanne Senna. The session highlighted many presentations from our Latin American colleagues. It included a "Hot Topics on Hair" session followed by an interactive session, "Learning from Hair Experts," with clinical case discussions. With 97 in attendance, the session received high marks and was very enjoyable. We give thanks to the faculty on their excellent presentations including Drs. Maria Cecília Rivitti-Machado (Brazil), Jorge Ocampo-Candiani, MD (Mexico), Paulo Müller Ramos (Brazil), Marcelo Teixeira (Brazil), Gisela D'Atri (Argentina), Jorge Felipe Larrondo Galvez (Chile), Carolina Palácio (Colômbia), and Anna Mandinova (USA).

The AHRS also participated in a one-hour session at the 2nd World Congress of Trichoscopy, on October 10, 2021, held in Sorrento, Italy, with talks on such issues as the



Faculty of AHRS Scientific Session: Latin American Edition, held October 1, 2021, via Zoom.

importance of membership in the AHRS, JAK inhibitors in AA, and hair transplantation, which were given by esteemed members, Drs. Maria Hordinsky, Antonella Tosti, and Gisela D'Atri.

PLANS FOR 2022

In 2022, the AHRS will be developing education and teaching clinicians about new and emerging treatments for alopecia areata. We are developing two events. The first is a one-day meeting called "The Journey to JAKs." The second is a 1.5-day meeting entitled "AHRS AA Summit." We are finalizing dates and venues, and these meetings will be announced soon. In addition, we will have the following events:

- The AHRS will host its annual scientific session and luncheon meeting at the time of the American Academy of Dermatology Annual Meeting taking place in Boston, Massachusetts, USA, on Friday, March 25, 2022. The meeting is open to all who are interested and tickets for non-members (\$50 each) may be purchased by contacting info@ americanhairresearchsociety.org.
- On Friday, May 20, 2022, the AHRS Scientific Session & Annual General Meeting will be held at the Society for Investigative Dermatology Annual Meeting in Portland, Oregon, USA.
- The AHRS will participate at CILAD on Wednesday, **June 29, 2022**, taking place in Madrid, Spain, with a 2-hour scientific session. CILAD is the Annual Meeting of Ibero-Latin American College of Dermatology.



American Hair Research Society

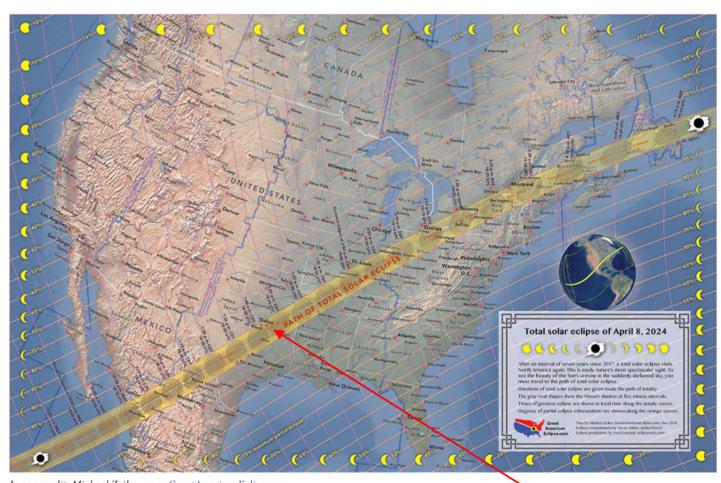
WCHR 2024

We are pleased to announce the dates and location of the 2024 World Congress for Hair Research in which AHRS is the organizing society. It will take place on **April 6-9, 2024**, in Dallas, Texas, USA. Please mark your calendar and plan to attend.

This special location on these specific dates was selected to coincide with the total solar eclipse that will occur on April 8, 2024, across the



Americas. Viewing a total solar eclipse firsthand is an extraordinary and unique experience. Dallas, Texas, is one of the major cities in the path of totality. The eclipse is set to occur around lunch time, and it will have one of the longest totality durations of all cities with 3 minutes and 46 seconds of totality. We have selected an amazing viewing area at an excellent venue so we may all experience this moment together!



 ${\it Image\ credit:\ Michael\ Zeiler,\ www. Great American Eclipse.com}$

Dallas

Proceedings & Key Messages from the AHRS Scientific Session at RADLA 2021 Virtual Edition

Alopecia: Focus on Dynamic Aspects

April 15-18, 2021



María Eugenia Cappetta, MD, Gisela D'Atri, MD, with scientific take-home points contributed by the presenters

Background

The American Hair Research Society (AHRS) was pleased to present a scientific session at the RADLA 2021 Virtual Edition, which was held April 15-18, 2021. The AHRS session was a pre-recorded 90-minute session available on demand in the RADLA virtual meeting platform.

RADLA is a professional scientific organization that congregates dermatologists and dermatology residents from 15 Latin American countries. Since 2019, the AHRS has participated as an ancillary



meeting of RADLA in the effort since NAHRS expanded to all of the Americas.

Due to the COVID-19 pandemic, the 2020 RADLA meeting, which was to be held in Asunción, Paraguay, was transitioned to a virtual congress and many sessions were on demand. Despite the global situation, more than 5,000 physicians enrolled this year.

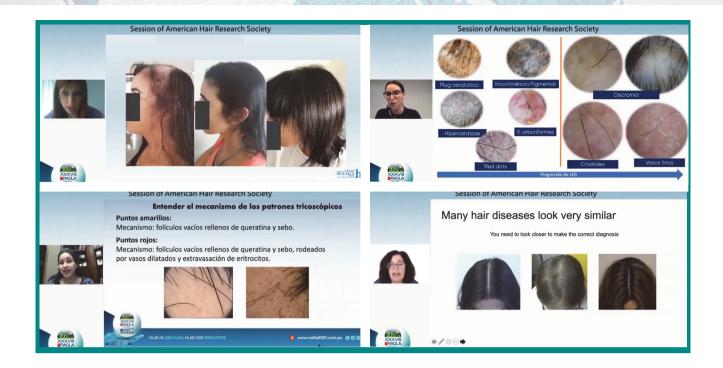
Welcome & Opening Remarks

Dr. María Eugenia Cappetta (Argentina) introduced the AHRS, and she explained its mission, the AHRS mentorship program, and the advantages of AHRS membership. Following the welcome remarks, and launched by AHRS President Dr. Antonella Tosti, presentations were made by seven esteemed Latin American colleagues. Key take-home points follow.

Alopecia Areata Incognita vs Diffuse Alopecia Areata

Dr. Gisela D'Atri (Argentina) explained the differences between alopecia areata incognita and diffuse. She mentioned that prognosis tends to be good in both entities and she stressed the following:

- These are underdiagnosed or misdiagnosed entities, and often mistaken to be telogen effluvium or androgenetic alopecia.
- The typical peribulbar inflammatory infiltrate is hardly ever found in biopsies of alopecia areata incognita, but it is more common in diffuse variants.
- Trichoscopic signs are more striking in diffuse forms (black dots, exclamation mark hairs etc.).



Folliculitis Decalvans-Lichen Planopilaris Spectrum—When Limits Are Not So Clear

Dr. María Eugenia Cappetta (Argentina) presented two clinical cases to illustrate the overlap between neutrophilic and lymphocytic alopecias and made the following key points:

- It is important to understand the dynamic process of scalp dermatoses/alopecias and to suspect these entities, which seem to have a particular prognosis; then combine treatments such as antibiotics with anti-inflammatory and immunosuppressants.
- Dysbiosis is a possible initial factor that triggers the immunoprivilege collapse.
- There are histological clues that would lead you to suspect folliculitis decalvans–lichen planopilaris spectrum: follicular packs (2-5 follicles), follicular epithelium atrophy, lymphohistiocytic infiltrate with granulomas, plasma cells, absence of or few neutrophils.

Trichoscopy as a Dynamic Tool

Dr. Norma Vázquez (México) presented trichoscopy as a useful dynamic tool. Take-home messages included the following:

- It is important to recognize patterns, including time and space, when using traditional trichoscopy.
- Trichoscopy is a useful tool not only for diagnosis but also for guiding treatment and as an evolution control.
- It is also important to understand the pathological mechanism to interpret the trichoscopic features and to know the stages of the diseases.

Scalp Discoid Lupus: The Great Simulator

Dr. Bruna Duque Estrada (Brazil) reviewed the clinical and trichoscopic features of lupus discoid, a great simulator, and made the following key points:

- You should always be mindful of other inflammatory and neoplastic scalp conditions such as psoriasis, Bowen's disease, or basocellular carcinoma as differential diagnosis.
- From a trichoscopic point of view, discoid lupus is the most colorful disease.
- It is important to recognize early lesions to improve prognosis and to distinguish active lesions from scarring lesions to quantify disease activity.



Alopecia Areata: Trichoscopy Findings

Prof. Antonella Tosti (USA), AHRS president, reviewed the trichoscopic findings of alopecia areata. Takehome points included the following:

- Trichoscopy is a useful tool for establishing diagnosis, mainly in difficult cases as diffuse variants. It is also useful to assess short-term prognosis and follow-up during treatment.
- Typical features of alopecia areata include yellow dots, black dots, exclamation mark hairs, numerous circle hairs, and broken hairs.
- To make an accurate diagnosis, recognize diseases that share trichoscopic signs with alopecia areata such as trichotillomania, traction alopecia, anagen effluvium, or dissecting cellulitis.

Bicalutamide in Female Pattern Hair Loss

Dr. David Saceda-Corralo (Spain) presented his experience on the use of bicalutamide in female pattern alopecia as an alternative to conventional treatments for selected cases. Key points were the following:

- He reviewed the safety profile of the drug compared with other antiandrogens as flutamide. Although elevation of transaminases can occur as a side effect, it is often mild.
- He noted the efficacy of low doses as 25-50 mg q.d. and the possibility of combining with other drugs such as oral minoxidil.
- Seborrhea tends to improve early during the treatment. It is also worth mentioning vertex alopecia improvement.

Alopecia in Systemic Amyloidosis

Dr. Jorge Larrondo (Chile) shared exceptional clinical cases that showed how hair diseases can be a marker for systemic conditions, in this particular case amyloidosis. The key points of his lecture included the following:

- Alopecia in systemic amyloidosis is uncommon, often precedes the diagnosis, and can be localized, diffuse, or universal.
- Trichoscopic features guide the biopsy to confirm the deposits.
- Dermatologists should be part of the medical team that take care of these patients.

Closing Remarks

Dr. Gisela D'Atri (Argentina) closed the meeting with final comments, thanking the presenters. All look forward to the next RADLA meeting, which we hope will take place in person.

Proceedings & Key Messages from the AHRS Scientific Session and Annual General Meeting

Webinar Program Ancillary Meeting of the 2021 SID Virtual Meeting

Webinar Program held on Friday/May 7, 2021





Victoria Ceh, MPA, Executive Director, American Hair Research Society

Background

The American Hair Research Society (AHRS) was pleased to present its annual scientific meeting as an ancillary meeting of the 2021 Society for Investigative Dermatology Virtual Meeting. Held as an interactive Zoom meeting on May 7, 2021, 150 persons were registered for the event with 66% coming from North America and 19% from South & Central America.



Welcome & Opening Remarks

Dr. Antonella Tosti, AHRS President, welcomed the audience and gratefully acknowledged the corporate sponsors—Concert Pharmaceuticals, Inc. and Pfizer. She referenced the exhibit showcase on the AHRS website with additional information and literature from the sponsors. She thanked the esteemed Annual Meeting Committee, headed by Dr. John Seykora, for organizing the program. Dr. Tosti relayed the Board of Directors' enthusiasm for the great turnout and invited nonmembers to consider joining the Society. She thanked the outgoing Board

members whose terms expired with this annual meeting, including Maria Fernanda R. Gavazzoni Dias, MD, PhD, Lynne Goldberg, MD, and John Seykora, MD, PhD. She congratulated and introduced the newly elected Board members including Isabella Doche, MD, PhD, Natasha Mesinkovska, MD, PhD, and Maryanne Makredes Senna, MD.

2021 David A. Whiting, MD Leadership & Research Award Presented to Hideo Uno, MD, PhD

Dr. Maria Hordinsky presented the 2021 Whiting Award to Dr. Hideo Uno noting his three major research areas: skin biology and disease in human and nonhuman primates, general pathology and aging in nonhuman primates, and nervous system and brain pathology in nonhuman primates. She went on to review his immense contribu-



tions to the field of hair research and touched on selected publications, several using the stumptailed macaque. Dr. Uno was unfortunately unable to attend, but he did prepare an acceptance speech that Dr. Hordinsky read. Notably, he mentioned, "The species of East Asian monkey, Stumptailed macaque, showed unique frontal alopecia resembling human androgenetic alopecia. Using this monkey model, we found that DHT triggered the dermal papilla cells to induce some factors diminishing the size of hair follicles in the frontal scalp. Furthermore, the inhibitor of DHT can block this phenomenon and clinically prevent the alopecia in both monkeys and human subjects. Now, it is widely known and using both minoxidil and finasteride for therapeutic use of androgenetic alopecia."

Progressive Dysfunction of Hair Follicle Dermal Stem/Progenitor Cells Contributes to Age-Related Hair Loss

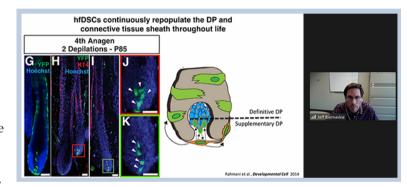
Keynote Speaker: Jeff Biernaskie, PhD

Professor, Stem Cell Biology and Regenerative Medicine, University of Calgary | Canada

Summarized by Jin Yong Kim, MD, PhD, Columbia University | New York, NY, USA

The scientific session launched with an informative Keynote Lecture. Take-home points included the following:

- Hair follicle dermal stem cells (hfD-SCs) function to populate the supplementary dermal papilla (DP), but can be co-opted to replenish the permanent DP in order to maintain inductive capacity.
- Aging prompts increased mobilization of hfDSCs into the permanent DP, likely to replace damaged cells.



- With advanced age, hfDSCs acquire senescence associated features and consequently exhibit diminished self-renewal and an inability to adopt appropriate DP fates, which may contribute to the diminished regenerative capacity of aged hair follicles.
- Effective treatment of hair loss may require targeted therapies to preserve or rejuvenate hfDSC health in order to maintain potency and proliferative capacity.

Decoding the Molecular Anatomy of Skin

Keynote Speaker: Maria Kaspar, PhD

Researcher, Skin and Stem Cell Biology, Karolinska Institute | Sweden

Summarized by Eunice Lee, MPhil, Columbia University | New York, NY, USA

Dr. Maria Kasper from Sweden's Karolinska Institute gave the second Keynote. She provided an extensive and informative overview of her laboratory's single-cell sequencing-based approaches to understanding

the cellular heterogeneity contributing to various skin- and hair-related biological phenomena. Take-home points included the following:

 Single-cell RNA sequencing (scRNAseq) and RNA FISH provided an atlas of full-thickness mouse skin and identified 56 cell types that define the telogen and anagen phases of the hair cycle.



- Downstream analyses such as trajectory inference and receptor-ligand analyses mapped the differentiation of anagen hair follicle cells and defined distinct subpopulations of the outer root sheath, as well as their interactions with the surrounding stroma.
- A collaboration with Dr. Valentina Greco's laboratory defined the trajectory of epidermal stem cell differentiation that was characterized by gradual transcriptional changes as opposed to discrete cellular states.
- scRNAseq-based approaches are currently being used to decode the molecular design of early skin development.
- Science is advanced through collaboration and the sharing of data. See kasperlab.org/tools to explore Dr. Kasper's and her laboratory's data online.

AHRS Annual General Meeting

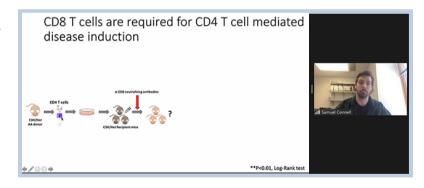
Dr. Maria Hordinsky, Immediate Past President, conducted the annual general business meeting. She reviewed membership numbers noting there are 297 total members, with the regional breakdown as follows: 63% North American, 21% South American, 4% Central American, and the remainder from Europe, Asia, the Middle East, and Australasia. She noted a renewal rate of 87% who paid their 2021 dues. She explained about the 2021 Virtual Mentorships and stated the 2022 Mentorships Program is planned to open in July 2021 for applications with a deadline of Nov. 30, 2021. Dr. Hordinsky thanked the donors of the AHRS Grant Fund. She announced the AAD Hair Loss and Alopecia Initiative in Research (HAIR) Grant Program. She encouraged the membership to save the date and submit abstracts for the 2022 World Congress for Hair Research, scheduled for April 22-25, 2022, in Melbourne, Australia.

Abstract Talks

Five abstracts were selected for oral presentations, all of which provided excellent and informative information. Key take-home points are noted as provided by the presenters.

Induction of Hair Loss by Expanded CD4 T Cells from Previously Affected AA Mice Samuel J. Connell, BA, The University of Iowa Graduate College | Iowa City, IA, USA

- There is an increased presence of interferon gamma producing CD4+ T cells in the skin-draining lymph nodes (SDLNs) of alopecia areata (AA)-affected C3H/HeJ mice.
- Isolated CD4+ T cells from the SDLNs of AA mice that underwent in vitro activation and expansion are able to induce disease in recipient mice as compared to CD4+ T cells from unaffected (control)



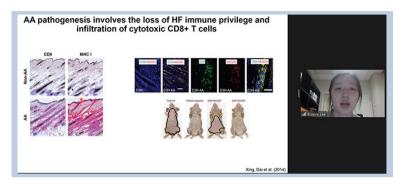
donor mice, and this disease induction occurs in a dose-dependent manner.

The endogenous CD8+ T cell population is needed in mice in order for disease to develop when induced by CD4+ T cells; however, the endogenous CD4+ T cell population is not required when disease is induced by CD8+ T cells.

Functional Interrogation of Immune Cell Types Identified by Single-Cell RNA **Sequencing in Alopecia Areata**

Eunice Lee, BA, Columbia University | New York, NY, USA

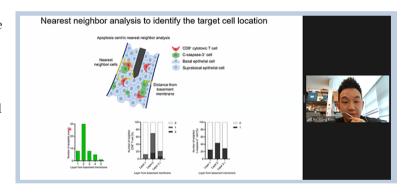
- Single-cell RNA sequencing of skin immune cells in C3H/HeJ mice with long-standing AA and age/sexmatched controls showed significant changes in the distribution of immune cell types across disease condition.
- The major cell types represented in our single-cell study of AA skin using antibody-mediated depletion were functionally interrogated.
- Consistent with the significant expansion of CD8+ T cells in AA skin, only anti-CD8 depletion completely prevented AA onset. Anti-CD4 and anti-CD25 delayed but did not prevent AA. Depletion of gd T cells and NK cells had no effect on AA onset.



Asynchronous and Perturbed Catagen Regression in C3H/HeJ Mice Precedes the **Onset of Alopecia Areata**

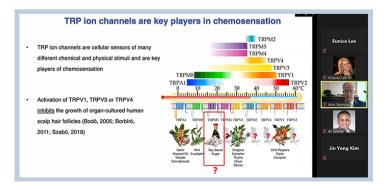
Jin Yong Kim, MD, PhD, Columbia University | New York, NY, USA

- Both extrinsic and intrinsic apoptotic pathways drive premature hair follicle regression in alopecia areata (AA).
- Henle's layer (K71+ inner root sheath) selectively targeted by cytotoxic CD8+ T cells in AA-affected C3H/HeJ mice.
- Asynchronous regression and delayed epithelial apoptosis were observed in catagen of C3H/HeJ mice.
- In catagen of C3H/HeJ mice, epithelial debris is cleared by activated immune phagocytes.



Hair Follicle Chemosensation: TRPM5 Signaling Is Required for Anagen Maintenance Andrei Mardaryev, MD, PhD, Monasterium Laboratory | Münster, Germany

- TRPM5 is a non-selective cation channel that is activated by a rapid and transient increase in intracellu-
- lar Ca2+ in response to G-protein coupled membrane receptor activation. However, its role in human hair follicle (HF) biology remains unclear.
- First, we showed TRPM5 prominent expression in the epithelial HF compartments, such as the outer root sheath (ORS) and hair matrix.
- In human HF organ culture, siRNA-mediated TRPM5 knockdown induced catagen transition associated with apoptosis and

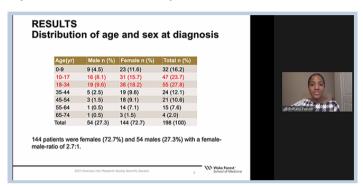


- reduction in cell proliferation in the hair matrix and proximal bulb ORS. A similar effect was observed in HF treated with a selective inhibitor triphenylphosphine oxide.
- Pharmacological TRPM5 activation with putative pheromones 2-heptanone and 2,5-dimethylpyrazine maintained HFs in the anagen stage at levels similar to or even greater than vehicle controls. Finally, we identified that TRPM5 controls the expression of well-known hair growth regulators, such as IGF1, TGFB1/2 and SFRP1. These data suggest that TRPM5 is a novel modulator of human hair growth, and specific TRPM5 activators or inhibitors maybe used to promote hair growth or inhibit unwanted hair growth, respectively.

Epidemiology of Alopecia Areata in Black Patients

Brittany Feaster, MHS, Wake Forest University School of Medicine | Winston-Salem, NC, USA

- Results of our study demonstrated a female predominance and increased prevalence of alopecia areata in younger patients. At the time of diagnosis, most patients were within the 18-34 year age group followed secondarily by the 10-17 year age group.
- Of our study population, there was increased prevalence of the comorbidities of diabetes mellitus, thyroid disease, obesity, hypertension, and depression. The highest prevalence of all the comorbidities evaluated was in atopic conditions.



Closing Remarks

After a wonderful session, Dr. Seykora opened the floor to final questions and comments. He concluded by thanking the presenters and audience.



Rod Sinclair, MBBS, MD, AHWRS President rodney.sinclair@sinclairdermatology.com.au | http://ahwrs.org.au/

13TH INTERNATIONAL CONGRESS OF HAIR RESEARCH THE MELBOURNE MEETING | NOVEMBER 18-21, 2022

The Delta variant plunged Melbourne into an extended lockdown during 2021. The great news unfolding is that double vaccination and booster vaccinations in Australia are now reaching world-record targets. This will enable the various states of Australia to soon return to normal activities including interstate and international travel. Critically, there will be no quarantine requirements for vaccinated tourists.

To allow delegates and speakers to regain confidence in International travel (and airfare prices to come down), at the last meeting of the International Federation of Hair Research Societies, it was decided the Melbourne meeting would be postponed for a second time until November 18, 2022. This newest postponement will allow delegates from the various world hair research societies to have security in their travel plans.



It is our aim to make this meeting a personal interactive event that provides a return to direct exchange of social and scientific activities. We are all exhausted by ZOOM meetings, and we understand your preferred option is for a traditional hair research meeting. However, for those unable to travel, we are looking at the option of a hybrid meeting.

Our conference organizing team is currently booking hotel accommodations and the various social events. We will have an exciting social program. Melbourne is at its most glorious in November with the spring horseracing carnival, warmer weather, and a host of sporting and cultural events. Our activities will be arranged around Melbourne so our friends and colleagues have the opportunity to explore the rich cultural texture of this vibrant multicultural city.





Remembering Our Dear Friends and Colleagues

IN LOVING memory of RODNEY DAWBER 1938 - 2021

Rodney Peter Richard Dawber, MA(0xon), MB, ChB(Sheffield), FRCP

Rodney Dawber was well known to International Dermatologists as a pioneer in cryosurgery and an expert clinician in diseases of the hair and nails. He was a driving force behind the creation of the European Hair Research Society and past-president. Rodney was a great teacher, an entertaining speaker, a formidable intellect, and a great mentor.

Rodney Dawber was born in Preston, Lancashire. He trained as a doctor in Sheffield University, Yorkshire, where Ian Sneddon was the clinical dean. His career in dermatology started as a registrar in Newcastle before moving to St John's Hospital for Diseases of the Skin in London and then as senior registrar to the Royal Postgraduate Medical School at The Hammersmith.

His first consultant post was at Stoke on Trent before his eventual move to Oxford where he quickly became known an authority on cryosurgery. He was a leader in dermatology surgery as a founding member of the British Dermatology Surgery Group, for which he was also Chairman in 1986-87. In 1986, Rodney served as President of the World Congress of Dermatological Surgery. His collaboration with his good friend Robert Baran, from France, resulted in his most-famous publications on Diseases of the Nail. Working together with Arthur Rook from Cambridge, Rodney produced the first



Andrew Messenger, Rodney Sinclair, and Rodney Dawber at the 4th International Meeting of Hair Research Societies in Berlin, June 2004

edition of Diseases of the Hair and Scalp. Both textbooks formed the basis for his chapters in ROOK, which were memorized by every Australian Dermatologist sitting for their part 2 Fellowship exam.

In 2008, Rodney was awarded the Archibald Gray Medal—the British Association of Dermatology's highest acknowledgment of achievement.

Rodney's outside interests included village cricket, rugby (he was a registered Rugby Union referee and included on the English National Panel), fell walking in the hills of Yorkshire, and running marathons. In all, he ran 8 Marathons in cities including London, Chicago, and New York.

Rodney formed life-long friendships with his colleagues all over the globe and with his students. After my time in Oxford form 1991-



1993, we met regularly at congresses and he visited me in Australia on a number of occasions. Having already been instrumental in the formation of the European Hair Research Society, Rodney was also a driving force behind the creation of the Australasian Hair and Wool Research Society in 1997.

After an early and long-lasting marriage to Maggie, completed by five daughters and a son, Rodney enjoyed a close relationship and their support throughout his life.

In retirement, Rodney and Maggie moved to Beverley and failing health led him to move into a care home where he passed away on October 28, 2021. It was the end of a life of considerable achievement and one from which our profession of Dermatology greatly benefitted from his enthusiastic teaching and collaboration. Our understanding of cryosurgery, the hair and nails, and how to advance these sciences made great strides during Rodney's lifetime, and a string of successors that he mentored will undoubtedly continue his endeavours.

He will be missed.

-Rod Sinclair and Terence Ryan





Vale Professor, George Rogers

It is with great sadness that we inform the hair research community of the passing of Professor George Rogers, Professor Emeritus of Biochemistry at the University of Adelaide, on November 3, 2021, after a long illness. He was aged 94. George was a renowned contributor to hair and wool research, and a founding member and the inaugural President of the Australasian Hair and Wool Research Society.

George's contributions to hair biology are too numerous to mention. His second ever publication was a single author research paper published in Nature in 1951. It was the first of many major scientific achievements that were recognised by his membership as a Fellow of the Australian Academy of Science in 1978, and the award of Officer of the Order of Australia (AO) in 2013 for his distinguished service to biochemistry. His

research interests included the following:

- Keratin biology, keratinisation, wool structure, formation and properties beginning in 1951 and extending over 12 years as part of CSIRO's wool research programs. This period was followed by 33 years at the University of Adelaide maintaining a program of biochemical studies of keratins and their formation in the growth of wool and hair.
- Development and application of electron microscopy and related methods to investigate keratin structure (1955-1965) and, in particular, the visualisation of microfibrils (now known as intermediate filaments) in the cells of wool and hair (1957-1959), the observation of substructure in keratin intermediate filaments (1961), and the description of the difference in organisation of the intermediate filaments in the macrofibrils of the ortho- and paracortices of mammalian hair fibres.

(Continued next page)



- Discovery of citrulline and enzyme mechanisms in keratin-related proteins of the inner root sheath cells of the hair follicle (1958-1971).
- Discovery of the epsilon (gamma-gluamyl) lysyl peptide link in keratin-related proteins of the inner root sheath cells and the enzyme in the hair follicle (transglutaminase) that catalyses its formation (1971-1972).
- Studies of the structure and function of the intracellular precursor protein, trichohyalin, in the hair follicle.
- Discovery of the enzyme activity peptidylarginine deiminase (PAD) that converts the arginine-rich trichohyalin precursor to a citrulline-rich protein. An addition to the post-synthetic modification of proteins (1974-present).
- The first demonstration of ribosomal dependent keratin protein synthesis in 1965 followed by detailed studies of the biosynthesis of hair keratin proteins (1969-1972).
- Initiated studies on molecular events in the development of the feather follicle that later led to the cloning and characterisation of the clustered genes of feather and related avian keratins (1970-1989).
- Cloning and characterisation of genes for the three classes of wool keratin proteins (1980-1999).
- Studies on the transcription of keratin genes (1983-1999).
- Research into the application of sheep transgenesis as a new approach to improving wool quality and production. Established collaborations with SARDI's Turretfield Research Laboratory for transgenic technologies since 1985 that produced transgenic sheep with modified wool (1992-present). Our collaborative research led to our inclusion in the Cooperative Research Centre (CRC) for Premium Quality Wool from 1995-2000. The research continued under the auspices of SARDI until 2001.
- Since 2003, investigating the molecular aspects of ethnic hair under sub-contract for a large European hair products company.
- In the 1960s, consulted on the Thornton murder investigation, and in 1972 was involved with investigation of fibre evidence in the van Beelen murder case and several similar murder cases in following years.
- In conjunction with Kao corporation, investigated the chemical link between 18-methyleicosonoic acid with proteins of the cuticle a-layer.

Moreover, George was a great mentor and a friend to many members of the International Federation of Hair Research Societies. He leaves behind his wife Lynn and four children.

George had a profound impact on our careers. He was a gentleman of great intellect and integrity. At an International Hair and Wool Biology meeting, Dennis Roop introduced George as "the God of Keratin."

We shall all miss him dearly.

—Rod Sinclair and Leslie Jones

Chinese Hair Research Society

Jianzhong Zhang, MD, CHRS Chairman rmzjz@126.com

Cheng Zhou, MD, CHRS Secretary rmpkzc@163.com

UPCOMING ACTIVITIES IN 2022

The most important activity for us in 2022 is the 6th Annual Meeting of the CHRS. This meeting will be held on May 27-29, 2022, in Changsha City, Hunan Province, China. More than 400 participants are expected to attend this meeting. Advances on etiology, pathogenesis, and diagnosis and treatments of various of hair diseases, especially hair loss disorders, will be discussed.

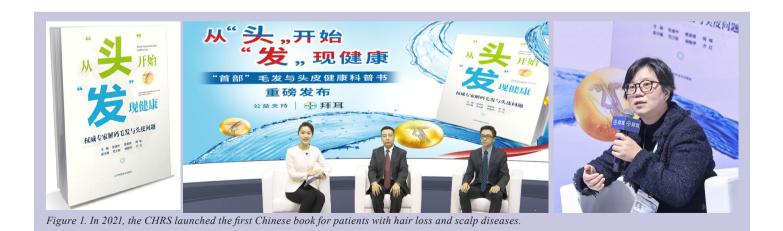
Additionally, more than 100 forums and symposiums about hair loss will be held in different cities throughout China.

PATIENT EDUCATION IN 2021

Over the past three to four years, hair loss has become a hot topic in China and the internet has been flooded with misinformation, so it is very important to provide authoritative, scientific, easy-to-understand disease information for patients.

Therefore, CHRS organized 28 hair experts from all over China to write the first Chinese popular science book for patients with hair loss and scalp diseases. The chief editors of the book were Drs. Jianzhong Zhang, Xingqi Zhang, and Cheng Zhou. The book was successfully launched in November 2021 (Figure 1). The book is written in Chinese, and the translated named of it might be "Getting Healthy Hair and Scalp—Authoritative Experts Decode Hair and Scalp Problems." The book comprehensively describes the structure, physiology, and function of the scalp skin and hair follicle. It introduces common diseases of hair and scalp skin, such as androgenetic alopecia, alopecia areata, and seborrheic dermatitis, and it answers the most frequently asked questions and addresses popular misconceptions held by many patients.

Interestingly, in 2021, more dermatologists began to educate patients through Douyin (TikTok) and live broadcasting. These new forms of patient education have greatly improved the dissemination of accurate information and have generated many followers.



(Continued next page)

Chinese Hair Research Society

ACADEMIC ACTIVITIES IN 2021

- The 5th Annual Meeting of the Chinese Hair Research Society was held on May 28-29, 2021, in Hangzhou City, Zhejiang Province. More than 350 participants attended this meeting. Prof. Ralf Paus from University of Miami Miller School of Medicine and Prof. Jerry Shapiro from New York University Grossman School of Medicine presented online keynote lectures.
- The Hair Disease Rehabilitation Forum took place October 10, 2021, in Hangzhou City (Figure 2).
- A series of online forums on hair loss rehabilitation were launched in July 2021, and five online forums have been held on monthly intervals as of this writing.
- The 5th Annual Congress of the Chinese Association of Hair Restoration Surgeons was held in Hangzhou city.
- The 4th West Lake Hair Forum was held in Hangzhou City.
- Hair Care Week was held May 18, 2021, with activities in Beijing.
- Hair Forum at the 27th Annual Meeting of the Chinese Society of Dermatology, took place June 17-19, 2021, in Xi'an City with a live webcast.
- Dozens of symposiums for the management of hair loss were held in cities throughout China.



CONTINUING MEDICAL EDUCATION PROGRAMS ON HAIR LOSS IN 2021

- The 3rd symposium for updates on hair disorders and cosmetic dermatology was held by Peking University People's Hospital, September 24-25, Beijing.
- An online symposium for pigmented and hair loss diseases was held by Huashan Hospital, Fudan University, on August 7, 2021, in Shanghai.
- An online symposium for dermatologic surgery, cosmetic injection, and hair transplantation was held by Huashan Hospital, Fudan University, September 24-26, 2021, in Shanghai.
- The 2021 symposium for practical techniques for hair clinics was held by China-Japan Friendship Hospital, October 23-24, 2021, in Beijing.



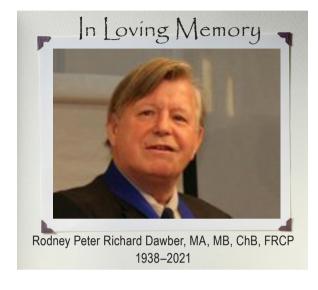
European Hair Research SocietySociety

Yuval Ramot, MD, MSc, EHRS Board Member y.ramot@gmail.com | https://ehrs.org/

Claire Higgins, PhD, EHRS Secretary secretary@ehrs.org

IN MEMORY OF RODNEY PETER RICHARD DAWBER, MA (OXON), MB, CHB (SHEFFIELD), FRCP 1938–2021

Rodney Dawber, the first president of the European Hair Research Society, passed away on 21st October of this year. Along with the late great John Ebling, he developed the concept of the Society and, together, they led it to fruition. The first meeting was held in the Astoria Hotel in Brussels in November 1989, hosted by Dominique van Neste and chaired by Rodney, and it had around 40 attendees. The idea took hold and spread with the subsequent creation of regional hair research societies around the globe.



Rodney was born in Lancashire in the north-west of England. He qualified in medicine from Sheffield University and trained in dermatology in Newcastle and London. His first consultant post was in Stoke-on Trent in the English midlands, alongside Roy Summerly, another supremely talented clinician. He then moved to Oxford from where, together with his colleague Terence Ryan, he would come to have a major influence on dermatology, nationally and internationally.

Rodney was an expert clinical dermatologist and a superb diagnostician who helped countless patients. In the days before computers, he meticulously catalogued rare hair disorders on index cards and in his enormous collection of clinical 35mm slides. He recognised the importance of clinical and laboratory research in explaining the physiology of hair growth. He innovated with cryotherapy and ruby laser for permanent hair removal. He established a national service for examining hair fibres for the diagnosis of patients with hair shaft disorders. He saw the importance of patient advocacy groups and supported their establishment in the UK. He advised industry on the development of pharmaceuticals and conducted research on their behalf, and lectured all over the world. He taught trichologists and became president of the UK Institute of Trichologists. He advocated for patients with hair loss in the media. He inspired generations of dermatologists to take an interest in hair diseases, hair biology, and hair research. He authored hundreds of peer reviewed articles and countless textbooks that were used by medical students, dermatologists, trichologists, and hair researchers. His textbook *Diseases of the Hair and Scalp* has become a classic, and his chapter on hair disease through multiple editions of *Rook's Textbook of Dermatology* was required reading for generations of dermatology trainees. Rodney was also a leading figure in the development of cryosurgery and a founding member of the British Dermatology Surgery Group, for which he was also Chairman in 1986-87. He was an authority on nail disease and co-authored the standard text Diseases of the Nail with his great friend Robert Baran.

In 2008, Rodney was awarded the Archibald Gray Medal—the British Association of Dermatology's highest award for achievement.

Rodney's outside interests included village cricket, rugby (he was a registered Rugby Union referee and included on the English National Panel), fell walking in the hills of Yorkshire, and running marathons. In all, he ran 8 Marathons in cities including London, Chicago, and New York.

Rodney was an inspirational person as many who have worked with him or been trained by him, or just met him around the table, will attest. He was a brilliant public speaker and chairman. He was a bon viveur who was fond of good food, good wine, fast cars, and conversation. He could talk the leg off a chair but, just when you thought he was waffling, he would bring all the threads of a conversation together. He was a true leader who led by determination, example, and encouragement. He was also a great friend to many among us in the EHRS. At his festschrift in Oxford, he spoke about the importance of fellowship, a quality he instilled in the Society at its inception and that has remained an enduring feature of it.



European Hair Research Society Society

Our condolences go to Rod's wife Maggie, his six children, and five grandchildren. He made a difference; he influenced the lives of others for the better and he will be remembered.

—Andrew Messenger & Rod Sinclair

(Please note that we are grateful to Dominique van Neste and John Gray for their insights and help with the preparation of this tribute.)

CELEBRATING A YEAR OF EXCITING AND SUCCESSFUL EHRS VIRTUAL MINI SYMPOSIUMS!

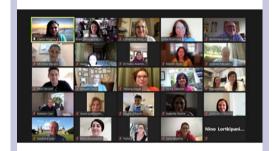
Starting in January 2021, the EHRS had organized mini remote symposiums, which provided EHRS members with important clinical and scientific updates on selected hair topics. Talks in the meetings were given by top experts in the field from all around the globe (North and South America, Taiwan, and Europe). The meetings were extremely popular and attended by many scientists and physicians, allowing time for discussion, O&A sessions, and even an opportunity to socialize in times when personal face-to-face meetings were not always possible. 1 CPD point was available for attendees at each meeting. After one year of mini symposiums, we would like to thank the organizers of the symposiums and the speakers:

- 1. January: Hair Follicle Cycling Chair: Claire Higgins; Speakers: Maria Kasper and Ralph Trüeb
- 2. February: Alopecia Areta Chair: Yuval Ramot; Speakers: Ralf Paus, Amos Gilhar, and Yuval Ramot
- 3. March: Oral Minoxidil for Treatment of Hair Disorders Chair: Vañó Galvan; Speakers; Mike Philpott, Sergio Vañó Galvan, and Monica Ramos
- 4. April: Neurophilic Alopecia Chair: Tatiana Silyuk; Speakers: Antonella Tosti, Isabella Doche, Umar
- Sanusi, and Michela Starace 5. May: Scarring Alopecia and Its Variants Chair: Michela Starace; Speakers: Sergio Vano Galvan, Christos Tziotzios,
- 6. June: Diagnostic Techniques for Hair and Scalp Disorders Chair: Bianca Maria Piraccini; Speakers: Dominique Van Neste, Lidia Rudnicka, and Catherine Stefanato.
- 7. July: Development & Control of Hair Growth Chair: Maria Kasper; Speakers: Hiro Fujiwara and Claire Higgins
- 8. September: Cancer Treatments and Hair Loss Chair: Alexandre Guichard; Speakers: Ilaria Piccini, Talveen Purba, and Azael-Freites Martinez
- 9. October: Mouse and Human Genetics Chair: Nilofer Farjo; Speakers: Joy Ng, Lara Hochfeld, and Lynn Petukhova
- 10. November: Why does the hair follicle cycle?

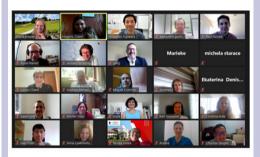
and Antonella Tosti

Chair: Andrey Panteleyev; Speakers: Cheng Ming Chuong, Jerry Lin, and Colin Jahoda

June



July



September



Remote symposium get-togethers



European Hair Research Society Society

NEW DATES FOR THE NEXT EHRS MEETING: EHRS 2022 IN ST. PETERSBURG, JUNE 30-JULY 2

In anticipation to finally attend a face-to-face meeting, our next EHRS meeting is planned to be held between June 30–July 2, 2022, in St. Petersburg, Russia. Registration and abstract submission are open, and you can access the meeting website for more information. Make sure not to miss this exciting event, and plan your visit to the beautiful city of St. Petersburg. The meeting will be held during the White Nights Festival, a time during which the nights are bright, and ships sailing the Neva River pass underneath drawbridges, accompanied by classical music. More details on St. Petersburg and the other treasures it has to offer can be found on the meeting's website: https://ehrs2022.org/general-information/.



Drawbridge in St. Petersburg

We would like to wish you all happy holidays, and while 2021 was still not as stunning as we wanted it to be, we have big hopes for 2022, so happy New Year!



The Korean Hair Research Society

Gwang Seong Choi, MD, PhD, KHRS President koreanhair.choi@gmail.com | http://www.khrs.or.kr/

2021 IN-PERSON MEETINGS RESUMED 19th Hair Forum

The Korean Hair Research Society (KHRS) 19th Hair Forum was held in person in Yuseong, Daejeo, August 21, 2021, following the 50-person limit set by COVID-19 regulations in Korea (Figure 1). In Session 1, individual topic presentations were held alongside lively discussion and commentary by experts to help with further research. Session 2 featured introductions into the new study surrounding genetic research on alopecia areata and discussions regarding polyphenol shampoos for



Figure 1. Attendees of the KHRS 19th Hair Forum

gray hair. For Session 3, the KHRS 2021 grant beneficiaries got the opportunity to introduce and discuss their research.

73rd Korean Dermatological Association Autumn Symposium

In addition, the 73rd Korean Dermatological Association (KDA) Autumn Symposium was held at the Seoul InterContinental Hotel Coex (Figure 2). The KDA provided grounds for rigorous academic discussion and lectures on practical clinical approaches. Active conversations regarding the diagnosis and evaluation of alopecia areata, current treatments, and emerging treatment methods took place at the meeting.

Korean Dermatological Association The 73rd Autumn Meeting Date: October 16(Sat) ~ 17(Sun), 2021 Venue: Intercontinental Seoul Coex Symposium 5: Hair Oct. 17 (Sun) 12:30-13:30 Harmony III Topic: What's New in Diagnosis and Treatment of Alopecia Areata 1. Overview (Snin) Doyoung Kim (New Link) 2. Up-to-date of diagnosis and evaluation of alopecia areata (15min) Mn Sung Kim (Chosus Link) 4. Up-to-date of conventional treatment of alopecia areata (15min) Mn Sung Kim (Chosus Link) 5. Q&A (10min) Figure 2

7th KHRS Continuing Hair Education Training

The 7th KHRS Continuing Hair Education Training was held at the Seoul InterContinental Hotel Coex on November 27 (Figure 3). The training focused on alopecia areata, male pattern hair loss, and hair loss in children. Topics covered at the in-person conference included the diagnosis of diseases showing symptoms similar to that of alopecia areata or male pattern hair loss, common causes for hair loss in children, trichotillomania, and treatments for dermatophytosis.



Hermit Patient Medical Support Project

In addition, on August 29, the KHRS was proud to sign

a business agreement with Health Kyunghyang, KMI Korean Medical Research Institute, and Korea Volunteer Council for a medical support project for hermit patients (Figure 4). The KHRS is the first academic society to support the Hermit Patient Medical Support Project. We plan to actively find and support pediatric patients suffering from hair loss.





The Korean Hair Research Society

NOTABLE RESEARCH

1. Restoration of immune privilege in human dermal papillae controlling epithelial-mesenchymal interactions in hair formation. Park JM, Jun MS, Kim JA, Mali NM, Hsi TC, Cho A, Kim JC, Kim JY, Seo I, Kim J, Kim M, Oh JW. *Tissue Eng Regen Med.* 2021 Oct 9.

Summary: Park and colleagues observed an increased expression of MHC class I glycoproteins in cultured dermal papilla (DP) cells, suggesting that there may be a loss of immune privilege in vitro. They verified TNF-alpha and IFN-gamma induce the expression of MHC class I proteins in DP cells. Additionally, loss of immune privilege was rescued following treatment with conditioned media (CM) from ORS cells. Using newborn hair patch assay, they demonstrated that Wnt3a CM with EGF can restore hair growth. In alopecia areata, CD8+ T cells were increased during the transition from mid anagen to late catagen. These results advance our understanding of the communication between various cytokines and immune privilege in hair follicles.

2. **Discovery of a transdermally deliverable pentapeptide for activating AdipoR1 to promote hair growth.** Ohn J, Been KW, Kim JY, Kim EJ, Park T, Yoon HJ, Ji JS, Okada-Iwabu M, Iwabu M, Yamauchi T, Kim YK, Seok C, Kwon O, Kim KH, Lee HH, Chung JH. *EMBO Mol Med.* 2021 Oct 7; 13(10):e13790.

Summary: Ohn and colleagues identified a small transdermally deliverable 5-mer peptide (GLYYF; P5) that activates adiponectin receptor 1 (AdipoR1) and promotes hair growth. P5 reproduces the biological effect of adiponectin protein via AMPK signaling pathway, increasing the expression of hair growth factors in the dermal papilla cells. Furthermore, they elucidated a key spot for the binding between AdipoR1 and adiponectin protein using docking simulation and mutagenesis studies. This study suggests that P5 could be used as a topical peptide drug for alleviating pathological conditions, which can be improved by adiponectin protein, such as alopecia.

3. Clinical efficacy of adipocyte-derived stem cells conditioned media combined with micro-injury in refractory patch of alopecia areata. Lee SB, Shin HT, Byun JW, Shin J, Choi GS. *Arch Dermatol Res.* 2021 Jun 15.

Summary: This study aimed to evaluate the clinical efficacy and safety of adipocyte-derived stem cell conditioned media (ASC-CM) combined with micro-injury (10,600 nm carbon dioxide fractional laser or microneedling) for the treatment of refractory alopecia areata (AA). Of the 14 enrolled patients, 9 (64.3%) showed > 50% hair regrowth and 6 (42.9%) showed complete recovery. In the responder group, mean period to achieve > 50% hair regrowth was 11.3 weeks. This study showed ASC-CM combined with micro-injury may offer effective and safe treatment options for a refractory AA.

4. A nationwide multicenter cross-sectional questionnaire study on the use of non-dermatologic facilities among patients with hair loss. Choi JW, Kim DC, Lew BL, Kim SS, Huh CH, Kim MB, Choi GS, Kang H; Korean Society of Hair Research. *J Eur Acad Dermatol Venereol*. 2021 Apr 29.

Summary: The authors performed a nationwide questionnaire study on the use of non-dermatologic facilities (NDFs) among patients with hair loss to better understand the pattern of NDF use. They observed that two-thirds of the respondents discontinued NDF use within 6 months due to lack of any effect, and awareness of alopecia treatment as a specialty of dermatological practice was significantly associated with adherence to conventional dermatologic treatment, regardless of previous experience of NDF.

5. Alopecia areata is not a risk factor for heart diseases: a 10-year retrospective cohort study. Lee H, Kim YC, Choi JW. *PLoS One*. 2021 May 7; 16(5):e0250216.

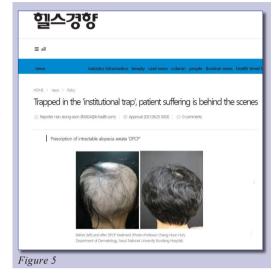
Summary: The relationship between alopecia areata (AA) and heart diseases (HDs) remains unclear. Lee and colleagues conducted a retrospective cohort study to evaluate the risk of subsequent HDs in patients with AA. They reviewed 3,770 cases of AA and from 18,850 age, sex, and income level-matched controls from the National Health Insurance Service-National Sample Cohort. As a result, they found that AA was not associated with a higher risk of overall HDs, including heart failure, angina pectoris, or myocardial infarction.



The Korean Hair Research Society

COLLABORATED ON ARTICLE REGARDING DPCP

The KHRS and Health Kyunghyang Newspaper company worked together on an article about diphencyprone (DPCP) (Figure 5). DPCP is a commonly used treatment for acute alopecia areata in numerous countries, but its use has not been authorized in Korea. The first article delves into the necessity to legalize DPCP and the supporting medical evidence. The latter article emphasizes the cause by introducing personal stories from three patients who have recovered from acute alopecia areata. We hope the regulations barring the use of DPCP will be rectified in the near future.





Russian Hair Research Society

Tatiana Silyuk, MD, RHRS President tatianasiliuk@gmail.com | https://rhrs.pro/

RHRS CONGRESS, MEETINGS, AND TRAINING

We are happy and proud that COVID never once prevented the Russian Hair Research Society from holding our national meetings and training courses during 2020 and 2021. None of our events had been moved online, and the second half of 2021 was no exception.

On July 1-3, St. Petersburg hosted the annual RHRS Congress. The 234 participants came from Russia, Moldova, Belarus, Estonia, Azerbaijan, Kyrgyzstan, Uzbekistan, Ukraine, Poland, and Kazakhstan, with 75 persons joining us for the first time. At the Congress, there were 63 talks on different aspects of hair biology and clinics were presented along with a round table on "Curly Hair." (Figure 1)



Unfortunately, there were still problems with visiting from overseas, so talks by Claire Higgins (hair cloning), Jill Westgate (origin of curly hair), Isabella Doche and Michela Starace (COVID's impact on hair and trichodynia syndrome), Sergio Vano Galvan (latest on alopecia), and Vladimir Botchkarev (stress and hair follicle) were presented as recordings. Based on the selection by RHRS members, the main topics of the meeting were "nutrients and hair" (Ralph Trüeb), "hormones and hair" (Yuval Ramot, Ralf Paus, Desmond Tobin, Andrzej Slominski), and "children's trichology" (Ramon Grimalt, Lidia Rudnicka, Antonella Tosti, Bianca Maria Piraccini, Matilde Iorizzo). In the session entitled, "Practical Aspects of Hair Follicle Biology," for the first time for the Russian audience, two novel aspects of hair biology such as the effects of light (Natalia Botchkareva) and chemosensation (Andrei Mardaryev) on hair growth were addressed. RHRS board members Andrey Panteleyev and Ekaterina Vorotelyak gave their talks on the fundamental aspects of hair biology: "Cellular Mechanism of Anagen Induction: The Hypothesis of Hair Follicle Predetermination" and "Hair Follicle Development: Regulation and Modelling," respectively.

Also at the Congress, a Russian translation (performed under the sponsorship of the RHRS) of the book "TRICHOL-OGY," by Sergio Vano Galvan and Pedro Jaen, was for the first time presented to Russian-speaking readers. The Congress's social program culminated with a Gala Dinner that took place with an amazing view over the Neva River with its drawbridges emphasizing the importance of live communication and social relations in support of the society's functionality and development.

The RHRS's educational activity continued with an in-person, two-day course on Trichoscopy, led by Dr. Tatiana Silyuk (October 30-31), that had 41 participants. (Figure 2)

Then, on November 12, 52 participants attended a one-day meeting on alopecia areata that took place in Saint Petersburg. For the first time, Ratchathorn Panchaprateep and Jorge Larrondo were among the invited speakers and their lectures were greeted with enthusiasm by Russian-speaking doctors. In addition, Andrei Andreev, the head of the Alopecia Areata patient organization (providing support to families with children suffering from AA) took part in this event. Social support may be even more important than



Figure 2. Participants of the two-day course on Trichoscopy, led by Dr. Tatiana Silyuk



Russian Hair Research Society



Figure 3. Results of state-of-the-art eyebrow tattooing

medical treatment for children with AA, and we are very keen on strengthening ties between physicians and patient organizations. We are also grateful to Andrey Andreev for his initiative to encourage Russian experts in tattooing to perform (free of charge!) a state-of-the-art eyebrow tattooing for patients with a long history of suffering from total and universal alopecia. The results of such work are impressive. (Figure 3)

All in all, the RHRS fully fulfilled its 2021 educational plan by having all 5 training events in person and off line!

In the second half of the year, we continued to use the online format. We held a free-of-charge online meeting, "Iatrogenic and Self-Inflected Alopecia," with a special guest Gabriella

Fabbrocini, that included 854 participants. We also offered a number of winter webinars. The first, AA Treatment, was held November 27 and had 119 participants; the other two were held in December (Hair Transplantation and PRP for Hair Loss). For the entirety of 2021, the RHRS organized 6 online meetings (2 in the first half of the year and 4 in the second).

All these events attracted new members, and the RHRS currently has 352 active members.

SIGNIFICANT RESEARCH AND PUBLICATIONS FROM RUSSIA

In terms of fundamental studies performed by RHRS members in 2021, it is worth mentioning the work of Dr. A. Panteleyev's laboratory (Kurchatov Institute, Moscow) and the studies of Prof. Ekaterina Vorotelyak (Institute of Developmental Biology, Russian Academy of Science, Moscow).

Dr. Panteleyev's group has continued intensive studies of hair follicle biology focusing on both fundamental and practical issues. In particular, the following aspects have been addressed: 1) the mechanisms of cell fate specification in the matrix of human follicles during stationary anagen phase; 2) cell kinetics during telogen-anagen transition in human hair follicles; and 3) modification of culture conditions (including composition of culture medium and oxygenation level) in order to promote vitality and to prolong cultivation time of isolated human follicles.

The studies of Prof. Vorotelyak's laboratory were focused on three major topics: 1) reconstruction of fully functional skin equivalents with hair follicle germs, including those obtained from pluripotent stem cells; 2) the role of protein kinases RIPK-1 and RIPK-3 in skin and hair follicle functioning (Morgun et al., 2020; Vorotelyak, 2020); and 3) xenotransplantation of human skin onto animals with immunodeficiency. This later approach provides the most adequate model for studying human tissues in normal and pathological conditions. Its main limitation was the size of the graft because skin explants larger than 10×10mm lose the lower part of the dermis and subcutaneous fat. That is why full-thickness xenografts rarely exceed size 3×3mm. A methodology has been developed to transplant 15×5mm full-thickness skin grafts with successful integration and preservation of all compartments: of the epidermis, dermis, blood vessels, hair follicles, and sebaceous and sweat glands. The grafted hair follicles maintain the physiological cycling and regeneration. This model is suitable for studying regeneration of hair follicles, glands, interfollicular epidermis, and other skin appendages (Kalabusheva et al., 2021). The resulting publications are the following:

- Morgun EI, Pozdniakova ED, Vorotelyak EA. Expression of protein kinases RIPK-1 and RIPK-3 in mouse and human hair follicle. Biochem Biophys Rep. 2020; 494(1):252-255 (in Russian).
- Kalabusheva EP, Rippa AL, Tsitrina AA, et al. Xenotransplantation of a full-layer human skin strip as a model for studying skin regeneration and the hair follicle cycle. Russ J Dev Biol. 2021; 52:42-52 (in Russian).

In addition, within the framework of monthly EHRS online conferences on hair biology, the meeting dedicated to the phenomenon of hair follicle cycling ("The Nature of the Hair Cycle—Why the HF Is Actually Cycling)" has been successfully conducted.



Russian Hair Research Society

EHRS 2022 MEETING IN ST. PETERSBURG: NEW DATES—JUNE 30–JULY 2, 2022 Registration and abstract submission is now open!

One of the major upcoming events in the hair field for 2022 is the organization of the European Hair Research Society annual meeting in St. Petersburg. This is the most important and honorable task for the RHRS. The board and the entire society (with the help of the EHRS) is working hard to organize it at the highest level and in the atmosphere of a long-awaited get-together of friends and colleagues.

We'd like to inform you that the dates of the meeting have changed and it will now be held June 30–July 2, 2022. Unfortunately, the previous dates (June 16-18, 2022) coincided with the largest social event in St. Petersburg—the International Economic Forum—that brought thousands of participants. In addition, on July 6, another large-scale scientific event will start in St. Petersburg—the International Congress of Mathematicians. These events would make it difficult to get around the city center and to enjoy the beauty of White nights. So, we opted to squeeze in the EHRS meeting between these two events.

For the EHRS conference venue, we have selected a nice hotel in the historical center of the city, within walking distance to the main attractions of St. Petersburg and to the majestic Neva River. We invite you to visit the website for this upcoming event at https://ehrs2022.org/, and we would like to remind you that abstract submission and registration are already open. A detailed program (both clinical and scientific) is scheduled to be put together before the end of this year.

We look forward to welcoming you to St. Petersburg, a vibrant and unique city of White Nights, drawbridges, and fountains!





The Society for Hair Science Research (Japan)

Manabu Ohyama, MD, PhD, SHSR President manabuohy@ks.kyorin-u.ac.jp | http://www.shsr.jp/

UPDATE ON THE SHSR

On December 11, 2021, the SHSR held its 29th annual meeting under the presidency of Prof. Rie Ueki (Professor, Dept. of Dermatology, Juntendo Tokyo Koto Geriatric Medical Center; Figure 1) at Ochanomizu campus of Juntendo University. The venue was the Ogawa Hall (Figure 2), which was named after Prof. Hideoki Ogawa, currently the CEO for Juntendo University and the founder and the honorary advisor of the SHSR (Figure 3). This enhanced the significance of this annual meeting. Fortunately, the COVID pandemic is well controlled in the Tokyo area (as of December 2021). Thanks to this, the number of attendees on site was more than expected.

Prior to the main program, the assembly of the Board of Directors meeting was held at the venue. The annual report of the SHSR's business and academic activities was presented. The postponement of the World Congress of Hair Research was officially shared among the directors, together with the current situation and future congress plans (the concept of regional hubs) of the Federation of Hair Research Societies. This is a reelection year for the SHSR. The president, the secretary general, and the auditor positions were up for election. This author (Manabu Ohyama, Professor and Chair, Dept. of Dermatology, Kyorin Univ. Faculty of Medicine) and Prof. Yutaka Shimomura (Professor and Chair, Dept. of Dermatology, Yamaguchi Univ Graduate School of Medicine; Figure 1) were respectively reelected as the president and the secretary general. Dr. Sotaro Kurata (Director, Beppu Garden Hill Clinic Kurata IIn) was appointed as a new auditor. Importantly, Prof. Yasuyuki Amoh (Professor and Chair, Dept. of Dermatology, Kitasato University School of Medicine; Figure 3) was officially selected as the president of the next SHSR annal meeting.

The main program of this annual meeting consisted of 3 concurrent sessions (basic research, clinical research, and clinical report), three sponsored seminars, one educational lecture, and one international collaboration seminar: the 2nd Friendship Seminar between the Korean Hair Research Society (KHRS) and the SHSR.

The majority of presenters in the basic research session were from industries, and the main topic was potential hair growth-promotive reagents. Intriguingly, Prof. Amoh's group presented the data supporting the advantage of using nes-



Figure 1. The 29th annual meeting president and SHSR officers. From the left, Prof. Yutaka Shimomura (the SHSR secretary general, Manabu Ohyama (this author and SHSR president), Prof. Rie Ueki (29th annual meeting president), and Dr. Misaki Kinoshita-Ise (SHSR manager, Assistant Professor, Dept. of Dermatology, Kyorin Univ. Faculty of Medicine).



Figure 2. The venue, the Ogawa Hall. This building is named in appreciation of long-term contribution to Juntendo University by Prof. Hideoki Ogawa (CEO, Juntendo Univ. and the founder/the honorary advisor of the SHSR).



The Society for Hair Science Research (Japan)



Figure 3. Representative on-site attendees. The meeting adopted "hybrid" architecture (on-site and remote). From the third from the left in the lower row, Prof. Shigaku Ikeda, Prof. Hideoki Ogawa, Prof. Rie Ueki, this author, and Prof. Ryoji Tsuboi (the former SHSR president). The second from the left in the upper row is Prof. Yasuyuki Amoh (the president-elect for the next SHSR annual meeting).

tin-positive hair follicle stem cells for regeneration of cardiac muscles, which expands the significance of hair biology research to the field of regenerative medicine. In the clinical research session, prevalence, comorbidities, and treatment pattern of alopecia areata in Japan based on the analysis of claims database, *in vitro* studies to characterize a novel causative gene for autosomal recessive woolly hair, and the usefulness of ultra-high-frequency ultrasound in the diagnosis of hair diseases were presented. Intriguing hair loss cases were reported in the clinical report session.

The sponsored seminars were respectively on a putative association between androgenetic alopecia and scalp microbiome, the promise of equol in female health including hair beauty maintenance, and the impact of hair shaft structural characteristics on appearance.

In the educational lecture, Prof. Shigaku Ikeda (Professor and Chair, Dept. of Dermatology, Juntendo University School of Medicine) talked about an alopecia areata—associated gene recently identified by his research group. The details are expected to be published shortly, and the discovery should shed

new light on the etiopathogenesis of alopecia areata.

The SHSR highly regards international cooperation. Of note, the Friendship Lecture Series between the KHRS and the SHSR has been held on regular basis at the annual meeting of each society. This year, the SHSR welcomed three distinguished speakers, two from the KHRS and one from the SHSR (Figure 4). Representing the KHRS, Profs. Young Lee (Professor, Dept. of Dermatology, Chungnam National University, Daejeon, Korea) and Jung Won Shin (Associate professor, Dept. of Dermatology, Seoul National University Bundang Hospital, Seongnam-si, Korea), respectively, presented their recent research findings on the crosstalk between mitophagy and inflammasome in the pathogenesis of alopecia areata and the effect of particulate matter on hair



Figure 4. The KHRS-SHSR Friendship Seminar was held virtually (a snapshot of the discussion after the presentation by Prof. Jung Won Shin).

diseases. Dr. Ryota Hayashi of the SHSR gave a talk on updates on genetic hair disorders. All presentations provided new insights into our understanding of hair diseases and so attracted scientific interest.

The closing remarks by Prof. Hideoki Ogawa were truly impressive. He explained the history of the SHSR, together with the history of Juntendo and the reason why the Ogawa Hall (Figure 2), replicating the original Juntendo University Hospital, was built. He also expressed his future perspectives on the research of hair biology/diseases and the role of the SHSR. Thereby, the meeting was successfully ended.

The members of our society are actively disseminating the latest knowledge on the management of hair diseases outside the SHSR. The members gave lectures on the management of hair diseases and recent discoveries in hair biology in meetings of the Japanese Dermatological Association (JDA), the Japanese Society for Investigative Dermatology, and other academic societies. The SHSR continues to support alopecia areata patients group via volunteering educational seminars and medical consultations.

It is a shame that our annual meeting was not a full on-site version. We strongly hope that the COVID pandemic will be cleared shortly as we wish to see our friends and colleagues in person, especially at international meetings such as the World Congress of Hair Research.

UHRS

Ukrainian Hair Research Society

Yuliya S. Ovcharenko, MD, PhD, UHRS President julya.ovcharenko@gmail.com | https://uhrs.org.ua

For many years, the Ukrainian Hair Research Society (UHRS) has been building bridges—between science and practice, doctors and patients, experts and young specialists; between leading scientific associations to create friendly professional ties; and to integrate and forward world trichological knowledge. Summarizing the work of the UHRS for 2021, we should note that the year was filled with international scientific and educational activities as well as with several large-scale events organized by the UHRS. In addition, in 2021, the number of active members of the UHRS has grown to 570.

Since 2016, the UHRS has been organizing educational tours for specialists from Ukraine and Eastern Europe to partic-

ipate in World and European Congresses. The interest of Ukrainian specialists in the science of hair was seen in the active involvement in holding of the 2nd World Congress of Trichoscopy (2nd WCT 2021) held in Sorrento on October 9-11, 2021, which was organized by Professor Antonella Tosti. Ukrainian experts were entrusted with organizing an advanced trichoscopic course in the event program. Our UHRS team was the largest foreign delegation (Figure 1) and we were thrilled to receive the honorary right to host the 4th World Congress of Trichoscopy in Kiev in 2026!



Figure 1. Ukrainian delegation with Prof. Antonella Tosti at the 2nd Congress on Trichoscopy (Sorrento, Italy)

3RD UHRS CONGRESS—BUILDING BRIDGES

On December 11-12, 2021, the main national event in the world of hair research took place: the 3rd UHRS Congress (UHRS2021) (https://uhrs-congress-21.uhrs.org.ua/eng). The traditional advantages of the Ukrainian event were the original scientific content, the scale of the event and the highest status of the organization, integrating international experience and the achievements of the national research. UHRS2021 brought together more than 1,000 delegates and experts from 5 continents. The large-scale event took place in the unique format of an online teleconference.

The scientific committee of UHRS2021 organized an ample and diverse program, following the traditions of holding meetings of European and World Hair Research Congresses (Figure 2). The pearl of the Congress was the presentation of the long-awaited scientific work, Psychotrichology. This book was collegially created at the nexus of sciences by experts in the field: Mohammad Jafferany (USA), Yuliya Ovcharenko (Ukraine), Ralph Trueb



Figure 2. The scientific committee of UHRS2021. (Left to right) President of the UHRS, Prof. Yuliya Ovcharenko; General Secretary of the UHRS, Dr. Kuzma Khobzei; Prof. Mohammad Jafferany; President of the GHRS, Prof. Nino Lortkipanidze; Dr. Ruta Barkauskaite; Vice President of the UHRS, Prof. Inessa Serbina.

(Switzerland), Inessa Serbina (Ukraine), Nino Lortkipanidze Georgia), Aida Gadzhigoroeva (Russia), Ruta Barkauskaite (Lithuania), Kuzma Khobzei (Ukraine), Maria Fernanda Gavazzoni (Brazil), Lidia Rudnicka (Poland), and Antonella Tosti

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(USA). This fundamental work in the field of hair research, which was based on the vast clinical experience of the authors, will launch the development of an independent medical direction. For the first time in the world of science and practice, the authors of the collective monograph gathered, analyzed, and systematized unique data on the psychiatric and psychosocial aspects of hair diseases and presented it in the main reports at the plenary sessions of the Congress (Figure 3).

The theme of our meeting, "building bridges," was not just a metaphor. For the first time in history, we held a genuine teleconference between the Ukrainian School of Trichology, in Kiev, and world experts from all of the continents. Each session of the Congress was moderated by two headliners: internal, from a Ukrainian television studio (Yuliya Ovcharenko (Ukraine), Kuzma Khobzei (Ukraine), Inessa Serbina (Ukraine), Nino Lortkipanidze (Georgia) Ruta Barkauskaite (Lithuania) and Mohammad Jafferany (USA)), and external, in direct communication from another part of the planet (Rodney Sinclair (Australia), Daniel Asz Sigall (Mexico), Sergio Vano Galvan (Spain), Antonella Tosti (USA), Lidia Rudnicka (Poland), Maria Fernanda Gavazzoni (Brazil), Anna Lyakhovitsky (Israel), Aida Gadzhigoroeva (Russia)) (Figure

4). At the end of each session, a teleconference that connected the moderators of the two countries for live discussions was held in real time. The "Bridges of Trust and Partnership" gave our participants a chance to attend the virtual exhibition in one click.

The research direction of UHRS in the study of the epidemiology of alopecia areata in Ukraine and the creation of an all-Ukrainian national registry of patients with alopecia areata in the framework of the global project GRAAS (Global Registry of Alopecia Areata disease Severity and treatment Safety) provided the basis for the session Alopecia School in Ukraine (https://alopecia.org.ua), which was headlined



Figure 3. The book Psychotrichology, edited by Mohammad Jafferany and Yuliya Ovcharenko.



Figure 4. Teleconference between Ukraine and Australia with Prof. Rodney Sinclair. (Left to right): Prof. Yuliya Ovcharenko, Dr. Kuzma Khobzei, Prof. Inessa Serbina, Prof. Rodney Sinclair (on screen).

by Inessa Serbina (Ukraine) and Rodney Sinclair (Australia).

Introduced into the structure of the UHRS Congresses beginning in 2019, "Trichology Consilium," the interactive quiz session for young professionals, traditionally steals the hearts of the audience and enriches the clinical experience in trichology. The awarding of diplomas and prizes was the most emotional moment of the meeting. The winners of the interactive quiz, who received exclusive collectible books signed by all the authors, were connected to the live broadcast. This built a virtual bridge between the speakers and active participants in the broadcast, who then had the opportunity to have a live discussion and "presence" both in the studio and on the screens of their colleagues.

The all-star composition of the UHRS Honorary Members was replenished with real legends of modern medicine. Yuliya Ovcharenko, on behalf of the board of the Ukrainian Hair Research Society, solemnly presented the honorary award to Mohammad Jafferany (USA), and announced the awarding of Rodney Sinclair (Australia), Sergio Vano Galvan (Spain), Maria Fernanda Gavazzoni (Brazil), Anna Lyakhovitsky (Israel), and Ralph Trueb (Switzerland) for their contribution to the development of the world science and active support of the Ukrainian Hair Research Society (Figure 5).

We are sure that all these unique opportunities made the 3rd Congress of the Ukrainian Hair Research Society an unfor-

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gettable event, and this meeting left a significant mark on the history of domestic dermatotrichology. Taking into account the high interest of foreign participants in Ukrainian events, since 2020 the congresses have been broadcast in three languages: Ukrainian, Russian, and English. UHRS2021 was rated by the American platform Hopin, and participants gave it 9.4 points out of 10! The average time of continuous viewing of content was 6 hours 45 minutes. The event was watched by 98% of the registered users. This allows us to assert with great confidence that no less interesting finds are waiting for us in the future, and we are looking forward to meeting you next year, in 2022!



Figure 5. Honorary Member statuette of the Ukrainian Hair Research Society

LOOKING TOWARD THE FUTURE: AN INTEGRATIVE APPROACH

From now on, a new direction of integrative medicine—psychotrichology—will continue to complement the plans of the UHRS. The presented book shows modern views on the psychosocial significance of hair, the effect of stress on the hair follicle, proposes a classification of psychotrichological disorders, and gives a description of clinical and pathogenetic data and differential diagnostic algorithms for conditions related to trichological and psychiatric pictures. The monograph presents the principles of therapy and features of medical management of psychotrichological patients, which involves interdisciplinary interaction of dermatotrichologists, psychiatrists, psychologists, and general practitioners.

We truly hope that this first work in psychotrichology will stimulate a desire for learning the psychological basis of hair disorders and their treatment approaches, and will allow specialists to expand their clinical competence and therapeutic arsenal in order to effectively manage psychotrichological cases in their practice. In 2022, we are going to publish the monograph in English, present the work at World and European hair research congresses, and actively popularize psychotrichology around the world.

Staff and Member Societies

Chair: Wilma F. Bergfeld, MD

Executive Secretary: Victoria Ceh, MPA Immediate Past Chair: Gillian Westgate, PhD

Managing Editor, IFHRS Newsletter: Cheryl Duckler

IFHRS MEMBER SOCIETIES

American Hair Research Society – founding member

Australasian Hair and Wool Research Society – founding member

China Hair Research Society

European Hair Research Society – founding member

The Korean Hair Research Society – founding member

Russian Hair Research Society

The Society for Hair Science Research – founding member

Ukrainian Hair Research Society

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