** HIGHLIGHTS #WCHR2019 APRIL 26th 2019 **

** Pediatric trichology **

- The diagnosis of hair dysplasia requires the correlation between clinical (alopecic pattern), trichoscopic and microscopy investigation of hair shafts. X-ray microanalysis, hair aminoacid chromatography and gene testing can also be used. Topical minoxidil 1-3% can be useful for hair dysplasias. (Dr. Juan Ferrando)
- Sabinas Syndrome is an AR congenital syndrome characterized by mental retardation, nail dysplasia and brittle hair (decreased cystine content). (Dr. Julio Cesar Salas-Alanis)
- Recent research has shown that antiJAK treatment could be useful for children affected by alopecia areata. (Dr. Yuval Ramot)

** Dermal papilla **

- Wnt signaling pathway is involved in the timing of dermal condensates morphogenesis. (Dr. Michael Rendl)
- Tissue non-specific alkaline phosphatase plays a critical role in the hair-inductive capacity of human dermal papillae spheres by regulating Wnt/β-catenin signaling. (Dr. Yeung Kwan Sung)
- Dermal papilla cells could be reprogramed in adult humans to induce the growth of new hair follicles. (Dr. Nikolaos Pantelireis, Dr. Carlos Clavel, Dr. Claire Higgins)
- SFRP1 (a Wnt inhibitor) may be used as a treatment of hair disorders in the future. (Dr. Ralf Paus)

** Mechanical (Physical) therapy for hair diseases **

- Skin patting is a new painless physical therapy for hair disorders. (Dr. Staracce)
- Main uses of platelet rich plasma (PRP) in trichology is androgenetic alopecia, telogen effluvium and alopecia areata. (Dr. Rubina Alves)
- Microneedling along with minoxidil treatment seems more effective than only minoxidil for treatment of male androgenetic alopecia. (Dr. Rachita Dhurat)
- Low-level laser therapy (LLLT) seems to be a useful treatment for androgenetic alopecia. Further studies are needed to elucidate best wavelength. (Dr. Joaquin J. Jimenez)
- Low-level laser therapy, Platelet-Rich Plasma, microneedling, mesotherapy with finasteride or dutasteride and injection of pluripotential cells are various methods to improve hair density after hair transplant but their efficacy and security remain unvalidated. (Dr. Rui Oliveira-Soares)
Genotrichosis

- Congenital hypotrichosis require a systematic approach for a correct diagnosis and clinical and genomic correlation. *(Dr. Arti Nanda).*
- Studying keratin diseases help us understand better keratins’ physiology. *(Dr. Yuval Ramot).*
- Trichoscopy helps to identify common genotrichoses in order to better select patients susceptible of genetic testing. *(Dr. Lidia Rudnicka)*
- Mutation in LSS (lanosterol synthase) is associated to AR hypotrichosis simplex. This finding links cholesterol metabolism and hair disorders. *(Dr. Maria-Teresa Romano).*

Frontal Fibrosing Alopecia

- Frontal fibrosing alopecia (FFA) is a genetically predisposed immuno-inflammatory disorder in which transcriptomic analysis has shown overrepresentation of transcripts encoding components of innate and adaptive immune response pathways. *(Dr. Christos Tziotzios).*
- Three studies have linked FFA with sunscreens use worldwide (UK (Aldoori et al.), Australia (Sinclair et al.) and Spain (Moreno-Arrones et al.). *(Dr. Rod Sinclair).*
- FFA is the most frequent cicatricial alopecia. It can present in three patterns (linear, diffuse and pseudo-fringe) but also has unusual presentations. Prognosis is based in age, age of onset, clinical presentation, BMI and education level. *(Dr. Sergio Vañó-Galván).*
- The FFASI and FFASS scales can help graduate FFA severity. *(Dr. Adriana Rakowska)*
- New treatments of FFA are retinoids, JAKinhibitors, LLLT and naltrexone. *(Dr. Rodrigo Pirmez)*

Hair follicle aging

- Hair aging should be approached holistically. *(Ralph Trueb).*
- Integral hair lipid (IHL) which cement and connect various layers within hair cuticle and hair cortex is crucial element to keep structural integrity of hair fiber. *(Dr. Won-Soo Lee).*
- Hemidesmosomes senescence is linked to hair follicle aging. *(Dr. Emi K. Nishimura)*
Psychological aspects of hair disease

- Anxiety due to hair loss is perceived differently between females and males. (Dr. Michela Starace,)
- Psychological problems due to hair disorders improve after alopecia treatment. (Dr. Ramon Grimalt,).
- Trichoscopy and adequate referral of these patients is key to the management of these disorders. (Dr. André Lencastre,)

Prostaglandins and hair follicle regulation

- The outer root sheath of the follicle may play a pivotal role in the regulation of the hair follicle. (Dr. Talveen S. Purba,).
- Bimatoprost increase hair growth of intermediate hair follicles and could be a potential therapy in the future. (Dr. Miranda BH))

John Ebling Lecture (Sexual hormones and hair follicles) (Valerie Randall)