Meetings and Studies

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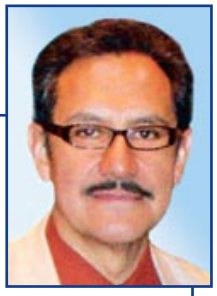

Below Dr. Carlos Puig reviews the 5th Annual St. Louis workshop that was held at the excellent facilities of the Saint Louis University School of Medicine and hosted by Dr. Sam Lam. The workshop included the latest High Definition Live 3D lectures and surgery dissection and an extensive, hands-on Cadaver Workshop. In addition, Dr. Puig summarizes the annual Japanese Society of clinical hair restoration meeting. This was an excellent and very interesting meeting that included several papers on cutting-edge technologies and stem cell research.

Thank you to Dr. Carlos Puig for his excellent summaries.

St. Louis to Tokyo: From the Basics to the Cutting Edge

Carlos Puig, DO, FISHRS *Houston, Texas, USA* cpuig@hairrestorationhouston.com

Last year I was indeed honored to be invited to participate as faculty at both the Saint Louis Hair Transplant 360 Workshop and at the annual meeting of the Japanese Society of Clinical Hair Restoration. The St. Louis meeting, organized and run by Dr. Sam Lam from Dallas, focused on training physicians in the basics of hair restoration surgery. The cadaver labs were utilized to train on donor harvesting both FUE and strip techniques, recipient site creation, and treatment planning. The Japanese society meeting, held in Tokyo and organized by Dr. Akira Takeda, focused on cutting-edge technologies that included the use of ACell, tissue culturing, and stem cell and growth factor research.

5th Annual St. Louis Hair Transplant 360 Hands-on Cadaver Workshop

The St. Louis meeting was organized by Dr. Sam Lam and was held at the St. Louis University School of medicine's practical anatomy and surgical education center, November 14-17, 2013. This beautiful facility was designed specifically for post-doctorate training of physicians and surgical techniques utilizing cadavers and houses the Zeiss dissecting microscope laboratory, which has about 15 dissecting microscope teaching stations. Each station has not only a dissecting microscope, but also a video display panel, so the instructor can see exactly what the student is doing and make immediate recommendations. This creates a very unique and efficient teaching environment.

Dr. Lam has managed this course for the last for five years, and has developed a very fine faculty, including Drs. Michael Beehner, Bob Niedbalski, Brad Wolf, Jim Harris, and Ken Williams. He has also recruited hair restoration surgery technicians. The technician team was led by Emina Karamanovski, and included Brandi Burgess, Tina Lardner, Aileen Ullrich, and Shellie Henderson. This year's meeting was attended by about 70 attendees, some from as far away as Singapore, whose practice experience varied from two or three years of experience to never having performed a case. Both the lecture and laboratory programs focused on the basics of hair restoration surgery. Throughout the program the faculty was encouraged to point out to the registrants methodologies that would be most appropriate for beginning hair restoration surgeons. It encouraged registrants to focus on doing what's best for the patient by curtailing the size and complexities of their procedures. Throughout the program there was a common theme: “ethical behaviors, do no harm, and respect for the procedure.” An emphasis was placed on the importance of informing the patient of the risk-benefit ratios of the interventions being offered.

Dr. Sam Lam reviewing course objectives.

Dr. James Harris leading a workgroup station in the cadaver lab.

Tina Lardner presenting to the Surgical Assistants.

Emina Karamonvoski showing proper positioning to a student.

There was a nice balance between the formal lecture format, panel discussions, and questions from the audience. It was remarkable to see how similar the strategic thinking was among the faculty. There were very few differences of opinion as to how to apply the basic strategies of hair restoration surgery. Because the program was focused in helping physicians to get started, the faculty seem to spend extra time in providing the registrants with information about technological surgical skills and medical therapies, as well as help with practice building that included information on such topics as office design, staffing, and practice management.

I believe Dr. Lam and the staff at the St. Louis University School of Medicine Practical Anatomy Education Center have once again delivered a well-designed program for beginning hair restoration surgeons.

18th Annual Scientific Meeting of the Japan Society of Clinical Hair Restoration

I returned to Houston from St. Louis, unpacked, and then repacked, grabbed my lovely wife, Cheri and boarded the plane bound for Tokyo to attend the November 23-24 meeting. We crossed the International Date Line and lost a day arriving in Tokyo about three in the afternoon on Tuesday. The Japanese society meetings were not scheduled to start until Friday, and Cheri and I had taken a few extra days before the meeting to spend time with Dr. Kuniyoshi Yagyu and his lovely wife, Wakako. On Wednesday we took a bullet train to Kyoto and spent two beautiful days there under Sensei Yagyu's tutelage visiting temples, shrines, and samurai castles, some of which were nearly 1,000 years old. Indeed Cheri and I will always be grateful to the Yagyu's teaching us about Japanese culture, food, and history.

Faculty of the Japanese Meeting *(left to right)*: Drs. Ken Wahenik, Marwan Safi, Akira Takeda, Carlos Puig, John Cole, and Kuniyoshi Yagu

Attendees of the Japanese Meeting

The Japanese Society of clinical hair restoration is unique among the hair restoration surgery societies around the world in that several years ago the surgical group elected to expand its membership to include both physicians and PhD biological science researchers interested in hair follicle physiology and pathophysiology. Nearly half the membership consists of researchers who are looking at hair follicle stem cells and the growth factors and cytokines that influence hair follicle cycling. The papers presented at this meeting were some of the most cutting-edge presentations in stem cell research available today. Unfortunately, only about half of the meeting was supported by translation, so those of us on the faculty who do not speak Japanese were often relegated to interpreting the slides as best we could.

Once again, I was honored to be invited by Dr Akira Takeda, president of the Japanese Society, to participate in their annual meeting as part of an outstanding faculty that included Drs. John Cole, Ken Washenik, Marwan Saifi, Robert Hoffman, and Drs. Tsuji and Itami.

Dr. Tsuji is one of the world's foremost authorities on hair follicle neogenesis from dissociated cells. He has successfully grown hairs in the mouse kidney and transplanted them into the mouse scalp where they established normal anatomical development including developing erector pili attachments, growth and cycling.

Dr. John Cole presented a very nice overview of his experience with the use of ACell and follicular unit extraction hair restoration surgery. As he often does, Dr. Cole left the attendees with as many questions about the new technologies as there were answers in his presentation.

Dr. Ken Washenik presented a nicely organized overview of the current status of hair follicle stem cell tissue culturing, and therapies that may be coming down the road in the future, whose origins came from this research. He also discussed the paradoxical role of different prostaglandins in the regulation of hair growth and loss, and the possible use of prostaglandin stimulators or inhibitors in the treatment of hair loss. Dr. Washenik shared the exciting discovery of potential use of JAK kinase inhibitors in the treatment of alopecia areata. Both of these discoveries are made even more clinically applicable because many of these compounds are already on the market for other diseases.

Dr. Robert Hoffman, Department of Surgery, University of California San Diego, presented a number of papers about hair follicle stem cells that express Nestin, and their potential impact on regeneration of injured nerves. Nestin-expressing hair follicle stem cells of the mouse can differentiate into neurons, keratinocytes, smooth muscle cells, and melanocytes *in vitro*. They appear to enhance nerve regeneration and restoration of nerve function in mouse injured nerve models. This is exciting as Nestin-expressing stem cells are readily available in hair follicles. These hair follicle stem cells may be an easily accessible source of safe, autologous stem cells for clinical use in treating neurological injury or disease.

Attending these meetings just before the Christmas holiday season made the last quarter of the year rather hectic, but also an exciting time to learn from both new and old friends, many new and exciting things about hair and hair restoration.◆

Regional Societies Profiles

In this issue, it is our pleasure to highlight the Brazilian Association of Hair Restoration Surgery (BAHRS). ISHRS members have had a great time with our Brazilian friends over many years enjoying both professional and personal interactions. They are amongst the most gracious hosts in the world when we visit, and hopefully many of us will make the journey for their upcoming conference scheduled for May 21-24 in São Paulo.

Dr. Ricardo Lemos is generous with his praise of the help that the ISHRS has given to Brazil, but we know that the exchange goes both ways and we certainly appreciate the insights we have received over the years from our Brazilian colleagues. May it long continue.

All the best Dr. Lemos for your conference, keep up the educational work. —MM

Brazilian Association of Hair Restoration Surgery

Dr. Ricardo Lemos

MM: What is the name of your society and when was it founded?

RL: The ABCRC - Associação Brasileira de Cirurgia da Restauração Capilar (BAHRS - Brazilian Association of Hair Restoration Surgery) was founded on March 1, 2003.

MM: Who are the founding members?

RL: Marcelo Gandelman, MD; Fernando Teixeira Basto Jr., MD; José Candido Muricy, MD; Carlos Eduardo Leão, MD; Maria Angélica Muricy, MD

MM: Do you have regular meetings, conferences, or workshops?

RL: Yes, we have a bi-annual meeting and one workshop per year. The previous one took place last November at the Ruston Clinic (ABCRC Live Surgery Workshop—Long Hair Transplant & FUE).

MM: Who are the office bearers?

RL: The Board of Directors until March 2015 includes: President, Ricardo Lemos, MD; Vice President, Francisco Le Voci, MD; Executive Secretary, Luiz Alberto Pimentel, MD; Deputy Secretary, Alonso Aymoré, MD; Treasurer, Sandro Salanitri, MD; Deputy Treasurer, José Rogério Régis, MD.

The Scientific Committee includes: Arthur Tykocinski, MD; Antonio Ruston, MD; Mauro Speranzini, MD.

MM: How many hair practitioners are there in your country and what proportion are members of your society?

RL: At present, there are not formal statistics of how many hair transplant practitioners we have in Brazil. In our association, we have 144 members.

MM: How many are members of ISHRS?

RL: There are 55 who are also members of the ISHRS.

MM: Are there any medico-political problems in your country?

RL: Now-a-days we are facing a lack of doctors in our country. As Brazil is a huge country, there are many regions that don't have enough of doctors. In response, our president, Dilma Rousseff, launched a program called MAIS MÉDICOS (More Doctors) to solve this problem. In this program, President Rousseff made a partnership with a Cuban Government and the Cuban Medical Association to send Cuban doctors to these areas. However, those doctors didn't undertake any evaluation to practice these specialties in Brazil, which caused a problem in the medical area.

MM: Is advertising allowed and are there different rules for medical advertising?

RL: There are many rules for medical advertising in our country and these rules are rigorous. The Federal Council of Medicine does not allow the advertisement of pre- and post-op photos. For example, the only permitted advertisement is educational, and even in this case you may not provide your address and phone number.

MM: Has the general public embraced hair restoration or is it still in its infancy?

RL: I have the impression that in the last few years there has been an increase in acquiring knowledge on the part of doctors due to participation in the ISHRS and our association, ABCRC, and consequently improvement in the HT results. As such, there has been an increase in acceptance of this procedure. So, HT surgery is neither in its infancy in Brazil nor have we reached full acceptance. In fact, one important obstacle is the lack of knowledge about the technique on the part of potential patients given that advertisement is so restricted here.

MM: Are most hair doctors busy? Are there lots of new doctors joining and, if so, are there too many complications?

RL: There are some HT surgeons who are very busy, but this is not the case for all doctors in this area. Regarding the doctors who are new to this area, most have acquired current knowledge about the technique but face the complications of gaining experience and also building the surgical team necessary for FUT and as such may have complications in their results. There are also doctors who have more years of experience, but they have not sought to update their techniques (potentially therefore having complications in their results.)

MM: Is the surgery mostly FUE or FUT?

RL: The majority of surgeries are FUT (more than 90%). FUE is just beginning to become popular in Brazil now.

MM: Are there any robots in Brazil?

RL: No, there are no robots in Brazil. ARTAS is trying to obtain approval for the robot with ANVISA (Health Department). Probably in the second semester of this year, we will have robots in Brazil.

MM: Is anybody investigating cell-based therapies?

RL: As far as I know, no.

MM: Who are the doctors that are active in education in your country and outside your country?

RL: Active doctors include: Alessandra Juliano; Alonso Aymoré; Antonio Ruston; Arthur Tykocinski; Carlos Alberto Calixto; Carlos Eduardo Leão; Carolina Marçon; Cristine Graf; Clerisvaldo Almeida Souza; Denise Steiner; Dirlene Roth; Fabio Bongiovani; Fernando Basto; Francisco Le Voci; Henrique Radwanski; Ival Peres Rosa; Izelda Maria Costa; Jório Santana Filho; José Candido Muricy; José Rogério Régis; Luiz Alberto Pimentel; Marcelo Gandelman; Marcelo Pitchon; Marcio Crisóstomo; Maria Angélica Muricy; Maria Gabriela Crisóstomo; Mauro Speranzini; Ricardo Lemos; Sandro Salanitri

MM: Where is hair restoration headed in your country?

RL: As noted above, we believe FUE will become more popular in the next few years, otherwise, it should be business as usual. A gradual overall improvement in results is expected with the increased availability of our conferences and workshops.

MM: When and where is your next scheduled meeting?

RL: The V Brazilian Congress of Hair Restoration will be on May 21-24, 2014, in Maresias Beach, São Sebastiao, São Paulo.

About Dr. Lemos…

Dr. Ricardo Lemos received his degree in Medicine in 1985 from the University of São Paulo, School of Medicine. Upon graduating, he received the Professor Edmundo Vasconcelos Award for best student surgeon in his class. In the five years that followed, Dr. Lemos completed his residencies in General Surgery and Plastic Surgery at the Hospital Das Clinicas of the University of São Paulo.

Dr. Lemos is a full member of the Brazilian Society of Plastic Surgery, the International Society of Hair Restoration Surgery, and the Brazilian Association of Hair restoration Surgery, for which he is currently president, and actively participates in national and international conferences.

During his career, he has dedicated himself to perfecting the art and efficiency in the field of hair restoration, particularly with Long Hair Transplantation, and is now a devotee of this technique. Over the last 18 years, Dr. Lemos has performed over 5,000 hair transplant surgeries, of which one-third were long hair transplants.

MM: What would you say are the strengths of your society?

RL: The promotion of educational programs and ethical control of medical practice in our area in Brazil.

MM: What can the ISHRS do to help you?

RL: The ISHRS is already helping us with the promotion of continuing education by way of the annual meetings and workshops and by supporting our local meetings during which various foreign doctors come to give classes. Otherwise, I believe that holding an ISHRS Annual Meeting in Brazil would be of great value to the Brazilian HT doctors as well as an honor.◆

Announcing ISHRS Online Video Library

Dear ISHRS Members:

There is a new valuable member-benefit now available!

We have compiled with authors' permissions the ISHRS Online Video Library containing surgical videos. Access is exclusive to ISHRS Members with no additional charge.

Over the years, the CME Committee envisioned this offering. We are happy to see it come to fruition. We will continue to add videos. All videos are educational in nature and non-commercial. Most are 5 minutes in length. Thus far, inclusion of videos has been by invitation only. There are many excellent videos and I encourage you to check it out.

We thank those physicians who created and allowed us to post their videos. The Society has always been about sharing education so our members can be better practitioners and our patients can receive the best treatments.

If you feel you have a worthwhile educational surgical video showing a particular technique or pearl and it meets these parameters, please e-mail our Executive Director Victoria Ceh with a link and description of the video at info@ishrs.org and the Committee will review it.

To access the ISHRS Online Video Library, login to the Members Only section at www.ISHRS.org. On the upper navigational bar, click "Members Only" and then Video Library. If you have trouble logging in, please contact ISHRS Headquarters and one of our staff can walk you through it.

ISHRS Cheryl Pomerantz

Surgical Assistants Training Resources Center

This online resource center contains materials to help physicians train new hair transplant surgical assistants/technicians.

The training resources have been developed by a task force composed of ISHRS physician and surgical assistant members who are devoted to the education and quality training of other professionals in the field.

The format of this resource center includes PowerPoint presentations, video files, images, sample PowerPoint slides for you to tailor so you can teach your surgical assistants, and Word documents with references and tips.

TRAINING TOPICS

1. Introduction and Acknowledgements
2. Job Description
3. Basic Science for the Beginner Technician
4. Instrumentation
5. Dissection: Slivering and Graft Preparation
6. Graft Placement
7. Trainer Placer Board
8. Quality and 'H' factors (human factors)
9. Efficiency Standards
10. Surgical Assistant Resource Manual

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You may lease subsequent months by repeating the online lease process or by contacting the ISHRS Headquarters: telephone 1-630-262-5399 or 1-800-444-2737, or info@ISHRS.org.

DEDICATION

This Resource Center is fondly dedicated to the memory of

Cheryl Pomerantz, RN (1949-2010).

Cheryl was a founding surgical assistant member of the Society and devoted countless hours towards development of assistant education, growth, and recognition. She was passionate about the field of hair restoration surgery and providing quality care to patients.

We honor her memory with the dedication of this Resource Center.

Hair's the Question*

Sara Wasserbauer, MD *Walnut Creek, California, USA* drwasserbauer@californiahairsurgeon.com

*The questions presented by the author are not taken from the ABHRS item pool and accordingly will not be found on the ABHRS Certifying Examination.

Platelet Rich Plasma (PRP, also termed autologous platelet gel, plasma rich in growth factors (PRGF), and platelet concentrate (PC)), while not a new technology, is a "new kid on the block" in hair transplant. What is PRP and how does it affect the hair follicle? Test your knowledge of this "new" adjunctive treatment for hair loss. You can bet your patients are going to know some of these answers.

PRP Questions

1. Mouse dermal papilla cells and epidermal cells mixed with activated PRP (10% and 15%) resulted in which of the following?
   A. No change in hair follicle growth after grafting
   B. Shortened the time of hair formation after grafting only
   C. Increased the time of hair formation after grafting but more hair follicles being formed
   D. Both shortened the time of hair formation and increased the number of newly formed follicles after grafting

2. All of the following are basic growth factors in Platelet Rich Plasma, EXCEPT which of the following?
   A. Dermal papilla cells (DPCs)
   B. Platelet derived growth factor (PDGF)
   C. Transforming growth factor (TGF)
   D. Vascular endothelial growth factor (VEGF)

3. The Platelet Rich Plasma (PRP) commonly used in hair restoration is:
   A. Porcine derived or bovine derived
   B. Acellular (e.g., ACell or Matristem)
   C. Heterologous
   D. Autologous

4. Other possible actions of PRP include:
   A. Stimulation of apoptosis and proliferation
   B. Stimulation of angiogenesis
   C. Differentiation and proliferation of leukocytes
   D. Reversal of the hair miniaturization cycle (i.e., miniaturization ceases)

5. The concentration of platelets in Platelet Rich Plasma (PRP) is:
   A. 1-2× that of native plasma
   B. 2-3× that of native plasma
   C. 3-5× that of native plasma
   D. 5-10× that of native plasma

6. Which of the following most accurately characterizes the morphology of PRP?
   A. A dense mix of various growth factors, RBCs, and leukocytes
   B. A loose acellular matrix that impedes bacterial migration and proliferation
   C. A fibrin framework over platelets that has the potential to support regenerative matrix
   D. A platelet pellet

7. The process to produce PRP (without a dedicated PRP-making machine!) involves collecting several vials of a patient's blood and:
   A. Centrifugation once only
   B. Centrifugation twice only
   C. Centrifugation twice and addition of dermal papilla cells (DPCs) or competent epidermal cells
   D. Centrifugation twice and addition of a platelet activator (thrombin, calcium chloride, or even collagen)

8. Which of the following would be an appropriate and expected use of PRP in a medical setting?
   A. Accelerated wound healing and reduction of scar formation
   B. Enhanced revascularization and bone/tissue regeneration
   C. Follicular neogenesis, improved graft survival rates, and improvement of existing hair growth (including both numbers of hairs growing and diameters of the individual hairs)
   D. All of the above

⇨ *Answers on page 112*

Hair's the Question from page 111

1. **D.** Both of these are results according to multiple studies including (most recently) the latest *Derm Surg* article from Yong et al. (reference #3). Exciting, right? I mean even if this is only in a mouse model, shortening the time to hair formation AND increasing the number of follicles is like the "holy grail" of hair science. No wonder everyone gets excited at the thought of this stuff working for human scalp hair!
2. **A.** The dermal papilla cell is NOT one of the basic growth factors in PRP, which means, if you picked A, you are CORRECT! (The fact that the answer did not include the words "growth factor" was likely a dead giveaway.) I almost never write a question this way (i.e., "all of the following EXCEPT"), because it is poor testing technique, but I wanted to make the point that PRP has several important and easily recognizable growth factors (IGF and PDAF are two others). Dermal papilla cells ARE induced to proliferate by the action of PRP, but the question asked for the names of growth factors.
3. **D.** "Advantages of using an autologous PRP include no risk of cross reactivity, immune reaction or disease transmission."2 Some people like to mix ACell (Matristem) with PRP, but it is not the same thing. Sometimes the thrombin used to activate PRP is bovine derived, hence answer A, but the blood used to create the PRP comes from the patient themselves.
4. **B.** It is hypothesized that programmed cell death (apoptosis) may be REDUCED by the use of PRP, so A is incorrect. Differentiation, proliferation, and angiogenesis are, in general, up-regulated! However, white blood cells (leukocytes) do not proliferate due to the action of PRP (answer C) and the process of miniaturization has not been shown to cease completely (answer D). This last point is a fine one, since even though hair formation post treatment is thicker in some studies, no one knows how long these effects will last so it is too early to call PRP treatment a "reversal."
5. **C** is correct.[2]
6. **C** is correct.[1]
7. **D.** According to a few dental journals I read, the whole process takes only 12 minutes![3] I would love to hear from hair transplant colleagues out there as to how long it takes in their offices, but I have never made it that fast. True "cookbook medicine," right? Answer C is the mix used in the Miao et al. article.[3]
8. **D.** D is of course true! (HINT: When taking my quizzes, ALWAYS choose "D. All of the above"). A quick scan of the literature reveals that PRP is being tried for multiple uses throughout medicine. For those who are interested, I have included a suggested reading list below that might provide an educational start. Enjoy!

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Suggested Reading

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ISHRS Educational Webinars

Enduring Material, On-Demand, Online Format

The International Society of Hair Restoration Surgery (ISHRS) is pleased to present its On-Demand Webinars. Recorded webinars are 60 to 120 minutes in length. Because they are recorded and available at all times, you may watch the webinars whenever it is convenient for you! CME Credit may be earned for many of the webinars by passing a short post-test with 70% or higher correct answers.

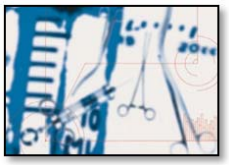
Pricing: ISHRS Members: $40 per credit hour; ISHRS Pending Members: $45 per credit hour; Non-Members: $50 per credit hour

Grow Hair Grow! Minimizing Poor Growth in Hair Transplants and New Ways to Max It Out

Faculty: Mario Marzola, MBBS, Michael L. Beehner, MD, John P. Cole, MD, and William M. Parsley, MD

120 Minutes; 2.0 CME Credits

This webinar shares insights on how to minimize poor growth outcomes in FUT and FUE procedures. Case studies illustrate the best practices in maximizing hair growth, lessons learned, and how to confront patients with poor growth. The faculty also discusses new ways to maximize growth in the use of vasodilators, angiogenesis stimulators, PRP, Lipophilic ATP, ACell, and other growth maximizer treatments.



Intro to Biostatistics & Evidence Based Medicine

Faculty: Jamie Reiter, PhD and Jerry E. Cooley, MD

90 Minutes; 1.5 CME Credit

This webinar provides basic information regarding proper research design and statistics for investigators in hair restoration surgery through didactic lecture and dialogue between presenters. It covers the importance of proper design and analysis, typical research questions asked by ISHRS members, research design, statistical analysis, and resources.

Being Discovered by Google and Prospective Patients

Faculty: Matt Batt (Moderator), ISHRS Integrated Communications Manager; Matthew Jackson, Search Engine Optimization (SEO) Manager, Lingo24; Bessam Farjo, MBChB

60 Minutes; 0 CME Credit (No CME)
Cost: No charge. Available only to ISHRS Members. (member benefit)

Being discovered by prospective patients online includes optimizing your website and "Playing by Google's Rules." Keeping up with all of Google's changes can be challenging, even to marketers focusing their attention on this subject. This webinar, which was recorded on February 27, 2014, highlighted Google's most recent changes, including the Hummingbird update, and shared strategies and tips to help practices be discovered by existing and prospective patients.

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EDUCATION – RESEARCH – COLLEGIALITY

Letters to the Editors

Re: Laxometer II: Instruction to use

Parsa Mohebi, MD, FISHRS *Encino, California, USA**
pmohebi@ushairrestoration.com*

**COI Disclosure: Dr. Parsa Mohebi is the inventor of the Laxometer and receives royalty from its proceeds.*

I read the interesting article by Dr. Jae Hyun Park about the Laxometer in the November/December 2013 issue of *Hair Transplant Forum International* (23(6):208-209) and thought it would be best to write a note describing the proper use of the Laxometer.

Dr. Park noted that the Laxometer only measures the downward mobility or laxity of the scalp and not the upward laxity. He then described an alternative solution that measures the mobility of the scalp in both directions in two stages. I absolutely agree that scalp laxity is important in both superior and inferior directions since it directly affects the final traction forces on the closed wound edges.

However, I need to correct the assumption that the Laxometer only measures the laxity of the scalp in one direction. After reviewing the article in the *Forum*, I had to go back and watch the initial instructional video that we made about the Laxometer II (link was also provided in the article). I have to admit that the initial video we made was not illustrative enough for someone who wants to use the Laxometer II for the first time.

I would like to apologize for not providing a better instructional video, and to thank Dr. Park for recognizing the issue and trying to find a solution for it. Here, I would like to present how the Laxometer measures scalp laxity or mobility in one step:

1. The Laxometer should be held in an upright position with its mobile part placed firmly against the scalp.
2. The tracing rubber ring should be moved to its most superior position so it is touching the ring of the mobile part.
3. While keeping a good grip of the scalp, the mobile part of the Laxometer should pull the scalp to its most superior position until we cannot move the scalp more.

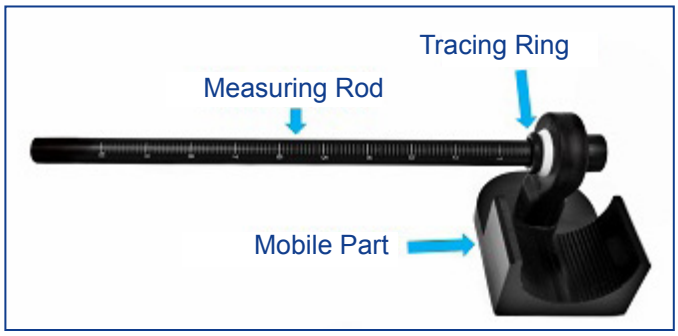

Figure 1: The Laxometer components

4. Then the operator should hold and stabilize the measuring rod with the other hand and keep it in a fixed position.
5. The final step is to pull the scalp to its most inferior position by moving the mobile part down. This motion is done while the measuring rod is held in a fixed position with the operator's other hand. This move pulls the tracing rubber ring to its most inferior position on the measuring rod. The position of the tracing rubber ring on measuring rod shows the maximum mobility of scalp from its most superior to most inferior position.

Measuring the mobility of the scalp from the most superior to the most interior position is what we need to have before removing the strip in hair transplant procedures. In other words, the Laxometer measures the maximum safe distance we can pull up the inferior edge, and also the maximum safe distance that we can pull down the superior edge of the donor wound.

We also have prepared an instructional video at www.ushairrestoration.com/laxometer to make it clear to users of how the Laxometer is intended to be used.◆

Review of the Literature

Jeff Donovan, MD, PhD *Toronto, Ontario, Canada* *jeff.donovan@ymail.com*

Frontal Fibrosing Alopecia

Vañó-Galván, et al. Frontal fibrosing alopecia: a multicenter review of 355 patients. *J Am Acad Dermatol.* 2014; 70:670-678.

Frontal fibrosing alopecia (FFA) is a scarring alopecia that seems to be increasing in prevalence around the world. The condition most commonly affects post-menopausal women and effective treatments remain to be fully elucidated.

In one of the largest studies of FFA published to date, 12 centers in Spain reported their observations with 355 affected patients over the period 1994 to 2013. The mean age was 61. Eighty percent of patients had eyebrow loss, and 39% reported eyebrow loss as the very first site of their hair loss. Body hair was lost in 24% and axillary and pubic hair was lost in approximately 20%. Fourteen percent had eyelash loss. Approximately 40% of patients had "severe" FFA, classified as recession of more than 3cm. Factors associated with "severe" FFA were eyelash loss, body hair loss and presence of facial papules.

Reported treatments included topical and intralesional steroids (130 patients), hydroxychloroquine (54 patients), finasteride (102 patients), and dutasteride (18 patients). Of patients using finasteride or dutasteride, 47% had improvement and 53% had stabilization of their disease. This was better than intralesional steroids, which led to improvement in 34% and stabilization in 49%, and oral hydroxychloroquine, which was associated with improvement in 15% and stabilization in 59%.

Comment: Prior published studies hinted at a potential benefit of 5-alpha reductase inhibitors in the treatment of FFA. This large study provides convincing evidence that these drugs are at the top of the list of effective drugs in the treatment of FFA. Surgical options were not discussed in this report and more study of how best to integrate surgery into the algorithms of FFA management is needed.◆

Efficacy and Safety of a Low-Level Laser Device

Jimenez, J.J., et al. Efficacy and safety of a low-level laser device in the treatment of male and female pattern hair loss: a multicenter, randomized, sham device-controlled, double-blind study. *Am J Clin Dermatol.* 2014(Jan 29). Epub ahead of print.

A limited number of published studies have reported the benefits of low level laser devices (LLLT) in the treatment of androgenetic alopecia. Continued widespread acceptance of these devices by the medical community requires independent confirmation of benefits through well-designed studies.

U.S. investigators set out to determine whether treatment with a low level laser device (the U.S. FDA-cleared HairMax® LaserComb) increases terminal hair density in both men and women with androgenetic alopecia. A randomized, sham device-controlled, double-blind clinical trial was conducted at multiple institutional and private practices. A total of 141 female and 128 male subjects aged 25-60 were randomized to receive either a laser comb (a 7 beam, 9 beam, or 12 beam HairMax device) or a sham device. Treatments were delivered on the whole scalp three times a week for 26 weeks. Patients who used any other hair growth promoting treatment in the prior 6 months (e.g., minoxidil or finasteride) were excluded from the study.

Overall, hair counts at week 26 were greater in male and female subjects using the laser comb compared to the sham device. A meta-analyses providing an overall assessment of the individual study results showed a difference of change in terminal hair density of 15 per cm^2 between users of the LLLT device and the sham device, and this was highly statistically significant ($p < 0.0001$). The increase in terminal hair density was independent of the age and sex of the subject and the particular HairMax LaserComb model.

Additionally, in a self-assessment questionnaire, a greater proportion of female patients using the 9-beam device reported improvement in their hair loss condition compared with sham-treated subjects (84% vs. 50%, $p = 0.03$) as well as an improvement in the thickness and fullness of their hair (72% vs. 46%, $p = 0.03$). Female patients using the 12-beam device and male patients using the 7-, 9-, or 12-beam device did not report differences in improvement of their hair loss condition compared to the sham device. However, male patients did report an improvement in the thickness and fullness of their hair compared to males using the sham device (57% vs. 36%, $p = 0.01$). No serious adverse events were reported in any subject receiving the LaserComb in any of the four trials.

Comment: This study provides further confirmation that LLLT devices safely improve terminal hair density. Physician assessments of global benefits (i.e., comparison of before and after photos) were not done in this particular study. Overall, a proportion of users of these particular LLLT devices are expected to feel their hair is thicker and fuller and that their hair loss condition was improved.◆

Message from the 2014 Annual Scientific Meeting Program Chair

Damkerng Pathomvanich, MD *Bangkok, Thailand* path_d@hotmail.com

The 22nd ISHRS Annual Scientific Meeting is only 5 months away. This is the premier meeting for hair restoration surgeons who want to be updated and in touch with major innovations in the field of hair restoration surgery. We are expecting many attendees from the Asian countries, as well as those from Europe, the Middle East, and many from the United States, Canada, and South America.

The Annual Scientific Meeting Committee is currently reviewing the program evaluations from the last meeting to improve and add on new topics to fashion another exciting and valuable program to meet the needs of the ISHRS membership. The program sessions range from basic sciences to advances in new technology and new instruments, videos of new techniques, the future of hair restoration surgery, and many other pertinent topics. There is a valuable beginner's Basics Course on Wednesday, prior to the scientific program, that should be attended by those new to our field. Those who want to take the ABHRS exam or experienced surgeons who want a refresher, should take the Advanced/Board Review Course on Wednesday; however, all members—regardless of experience level—are welcome to attend any courses and workshops they feel will be beneficial. The FUE mini courses sold out quickly last year, so if you are interested in learning FUE, please register and reserve your seat early since attendance is limited. There will be also a didactic FUT mini course on Wednesday that will demonstrate how to minimize follicular transection, how to safely excise a wide donor strip, and how to close the donor wound to minimize scarring and realign hair direction. This FUT course is not to be missed, even by experienced strip surgeons.

Please don't let the mystery of the missing Malaysian airline flight MH370 deter you from attending the meeting. Traveling by air is still by far the safest and fastest way to reach the destination. If you attend the meeting, you will learn concepts and techniques you can immediately apply to your practice. It's not only fruitful education you receive by attending the ISHRS meeting, but you and your family can also enjoy and explore the beautiful city of Kuala Lumpur and/or visit neighboring countries during your trip.

Please mark your calendar today and note that the 2014 meeting has changed to October 8-11, 2014, at the Shangri-La Hotel in Kuala Lumpur, Malaysia. Looking forward to seeing you there.◆

Message from the 2014 Surgical Assistants Program Chair

Aileen Ullrich *Hillsboro, Oregon, USA* aileen@gabelcenter.com

This year's annual scientific meeting will be held in Kuala Lumpur, Malaysia from October 8-11, 2014. Our Surgical Assistants Program will be held on Wednesday, October 8, from 7:30AM to 12:00NOON.

During our Surgical Assistants Program, the ISHRS physician members have asked that the important subjects of graft survival/growth, interaction with patients, and infection control be addressed. With these topics in mind, our goal is to create a unique and engaging program that will help all levels of assistants to increase their understanding of established practices within the field of hair restoration, communicate effectively with patients, and collaborate with the surgical team.

In addition, with incorporation of FUE into the physician's practice on the rise, we will examine ways to manage differences in workflow, instrumentation, and handling of FUE grafts. Knowledgeable speakers, video, small group formats, and translation of handout materials will be utilized to increase attendee retention and expand learning.

I encourage all ISHRS physician members to attend this year's annual meeting along with their office staff. The Surgical Assistants Program will be a valuable educational/training opportunity for all assistants.

Like Bangkok, Kuala Lumpur is a city of rich culture and history and I am looking forward to experiencing with my friends and colleagues the cuisine, architecture, and people of this amazing destination. Please join me there.

Do not hesitate to contact me with questions regarding the program, ideas, or suggestions: aileen@gabelcenter.com.◆

CALL FOR NOMINATIONS

2014 ISHRS Awards

GOLDEN FOLLICLE AWARD

Presented for outstanding and significant clinical contributions related to hair restoration surgery.

PLATINUM FOLLICLE AWARD

Presented for outstanding achievement in basic scientific or clinically related research in hair patho-physiology or anatomy as it relates to hair restoration.

DISTINGUISHED ASSISTANT AWARD

Presented to a surgical assistant for exemplary service and outstanding accomplishments in the field of hair restoration surgery.

How to Submit a Nomination

Include the following information in an e-mail to: info@ISHRS.org

- Your name,
- The person you are nominating,
- The award you are nominating the person for, and
- An explanation of why the person is deserving; include specific information and accomplishments.

Nominating deadline: July 15, 2014

See the Member home page on the ISHRS website at www.ISHRS.org for further nomination criteria. The awards will be presented during the Gala Dinner at the ISHRS 22nd Annual Scientific Meeting that will be held on October 11, 2014, in Kuala Lumpur, Malaysia.

ISHRS Research Grants Available

The International Society of Hair Restoration Surgery (ISHRS) offers research grants for the purpose of relevant clinical research directed toward the subject of hair restoration. Research that focuses on clinical problems or has applications to clinical problems will receive preferential consideration. There are several opportunities this year for hair-related research grant funding through the ISHRS with typical amounts of $1,200 to $2,600 USD per grant. ISHRS members in good standing may apply.

Grant applications deadline: July 15, 2014

Further information and a full application can be obtained on the ISHRS website at

www.ISHRS.org/member-grants.htm.

Classified Ads

Hair Transplant Surgeon for NYC

Ziering Medical is searching for an experienced Hair Transplant Surgeon to join our Chicago, New York, and Dubai clinics.
Generous compensation package in an established market, with tremendous upside.
Interested candidates, please send your CV and cover letter to
charmane@zieringhair.com.

Hair Restoration Surgeon Needed

A busy hair restoration practice in Denver, Colorado is looking for a physician willing to perform strip harvest, manual powered FUE and ARTAS System FUE. Some experience in hair restoration is desirable but not required.
The candidate must possess great bedside manner, excellent eye-hand coordination, and an eye for the "art" of hair restoration.
If you would like to be part of rapidly expanding practice committed to excellent patient care and results and advancing the art and science of hair restoration with a commitment to research, physician education, and social responsibility, contact Ms. Janiece McCasky at jlmccasky@hsccolorado.com.

Wanted: Hair Transplant Surgeon

Searching for a Hair Transplant Surgeon to assist our patients in the Fort Myers/Naples, Florida area. Must specialize in the FUE and FUT methods, be licensed to practice in Florida and willing to travel to our clinic 1-2 weeks per month.
Compensation: Dependent on Experience
Please call: 239-963-4780

Seeking Surgical Technicians/Medical Assistants

Ziering Medical is seeking experienced surgical technicians/medical assistants to join our team.
Excellent working environment, compensation, salary and benefits.
Searching for Full Time, Part Time and Independent Contractors. Willingness to travel a plus.
Upcoming positions available in Atlanta, Beverly Hills, Chicago, Newport Beach, New York, Philadelphia, and Pittsburgh.
Please e-mail your résumé to: hairrestorationjobs@gmail.com

2014 Membership Directory Now Available

The 2014 ISHRS Membership Directory is now available!

Obtain the PDF via the Members Only section of the ISHRS website. Many members choose to keep the PDF on their laptops while others print out and spiral-bind a copy for their office.

To access the directory, log in to the Members Only section of the ISHRS website. On the top blue navigational bar, click "MEMBERS ONLY." On the main page of the Members Only section, under the heading "Resources," the 2014 Membership Directory is the last link listed.

As a reminder, the Membership Directory is for your personal use only. Per the terms of use, you may not use the information for blast emails or mailings.

ISHRS 22ND ANNUAL SCIENTIFIC MEETING

Shangri-la Hotel
Kuala Lumpur

OCT 8-11 2014

Reflections for Ultimation and Evaluation of the Current and New Trends in Hair Restoration Surgery for Optimum Outcomes

www.ISHRS.org/AnnualMeeting.html

Plan to Attend!

The ISHRS's annual scientific meeting is THE premiere meeting of hair transplant surgeons and their staff. ***You don't want to miss it.***

GENERAL SESSIONS

- The Future of Hair Transplantation
- Advances in Hair Biology
- Hairline Design Panel
- Unique Issues in Ethnic Transplantation
- Small Group Discussion Tables on a Variety of Topics
- Storage Solutions
- Non-Surgical Adjunct Therapies
- Live Patient Viewing
- Surgical Pearls to Achieve the Best Results

OTHER OFFERINGS

- Daily Lunch Symposia and Friday Morning Workshops
- FUE and FUT Hands-On Mini-Courses
- Basics in Hair Restoration Surgery Course
- Advanced/Review Course
- Surgical Assistants Program
- M&M Conference
- Exhibits Program
- E-Poster Exhibits
- Social program including optional tours and activities, Welcome Reception, Gala Dinner/Dance

NEWCOMERS ARE WELCOME!

We offer a "Meeting Newcomers Program" to orient those who are new to the ISHRS annual meeting. Newcomers will be paired with hosts. We want to welcome you, introduce you to other colleagues, and be sure you get the most out of this meeting.

2014 ANNUAL SCIENTIFIC MEETING COMMITTEE

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Michael W. Vories, MD - *USA*

Advanced/Board Review Course Co-Chair
Scott Boden, MD - *USA*

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INTERNATIONAL SOCIETY OF HAIR RESTORATION SURGERY

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Dates and locations for future ISHRS Annual Scientific Meetings (ASMs)

2014: 22nd ASM
October 8-11, 2014
Kuala Lumpur, Malaysia

2015: 23rd ASM
September 9-13, 2015
Chicago, Illinois, USA

2016: 24th ASM
October 2016
Central America (TBC)

HAIR TRANSPLANT forum INTERNATIONAL

Advancing the art and science of hair restoration

Upcoming Events

Date(s)	Event/Venue	Sponsoring Organization(s)	Contact Information
May 20-23, 2014	University Diploma of Scalp Pathology and Surgery *Paris, France*	University of Paris VI *www.hair-surgery-diploma-paris.com*	Tel: 33 (0)1 + 42 16 13 09 *sylvie.gaillard@upmc.fr*
May 21-24, 2014	5th Brazilian Meeting of Hair Restoration Surgery *Maresias Beach, Sao Paulo, Brazil*	Brazilian Society of Hair Restoration Surgery (ABCRC) *www.abcrc.com.br/congresso*	Arthur Tykocinski, MD, Program Chair *arthur@cabelo.med.br*
June 13-15, 2014	ISHRS European Hair Transplant Workshop *Brussels, Belgium*	International Society of Hair Restoration Surgery Hosted by Jean Devroye, MD	*www.European-Hair-Transplant-Workshop.com* *workshop2014@drdevroye.com*
June 26-29, 2014	XV ISHR International Meeting: Advancing in Hair Restoration *Siracusa (Sicily), Italy*	Italian Society of Hair Restoration Hosted by Franco Buttafarro, MD & Pietro Lorenzetti, MD	*lorenzettipietro@virgilio.it* *francobuttafarro@gmail.com* *www.ishr2014.com*
September 19-21, 2014	HAIRCON 2014 *Marriott Resort & Spa, Goa, India* *http://www.ahrsindia.org/Hair%20Con%202014_Final%20Art%20Work.pdf*	Association of Hair Restoration Surgeons–India *http://www.ahrsindia.org/index.html*	Dr. Sandeep Sattur, Congress President Tel: +91 9821259300 *drsattur@hairrevive.com*
October 8-11, 2014	22nd Annual Scientific Meeting of the International Society of Hair Restoration Surgery *Kuala Lumpur, Malaysia*	International Society of Hair Restoration Surgery *www.ishrs.org*	Tel: 1-630-262-5399 Fax: 1-630-262-1520
October 23-26, 2014	6th Annual Hair Restoration Surgery Cadaver Workshop *St. Louis, Missouri, USA*	Practical Anatomy & Surgical Education (PASE), Center for Anatomical Science and Education, Saint Louis University School of Medicine In collaboration with the International Society of Hair Restoration Surgery *http://pa.slu.edu*	*http://pa.slu.edu*
November 23-24, 2014	19th Annual Meeting of the JSCHR *Okayama, Japan*	Japan Society of Clinical Hair Restoration (JSCHR) Hosted by Shinsaku Kawada, MD	Shinsaku Kawada, MD, Program Chair *kawada@kawada-keisei.gr.jp* *www.jschr.org*
December 5-6, 2015	20th Annual Meeting of the JSCHR *Kochi, Japan*	Japan Society of Clinical Hair Restoration (JSCHR) Hosted by Ryuichiro Kuwana, MD	Ryuichiro Kuwana, MD, Program Chair *der-r-kuwana@mte.biglobe.ne.jp* *www.jschr.org*