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The Pairing Technique of the Moser Medical Group

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In 1992, we introduced the "Moser Method" of hair transplantation in Rio de Janeiro.[1] To our knowledge, as pioneers in the development of large sessions of small grafts, our clinic was the first to produce more than 1,000 slits in a single surgery. The "Moser Method" not only encompasses the removal of epidermis around the hair follicle but also a very careful preparation of the graft by our assistants. Any excess tissue is removed from the graft so only the slim follicular unit (FU) itself is implanted.[2] We also gently "mash" the grafts with the side of the #10 blade like a spatula, which helps in dissecting these skinny grafts. Because of this way of dissecting, we have more single- and 2-hair FUs compared to other preparation techniques.

By using these techniques, we usually obtain 40% single-hair grafts, 50% 2-hair grafts, and only 10% 3-hair grafts, depending on the patient. In most cases, we will then combine these "skinny" grafts to create "pairs," thus creating multi-hair grafts composed of only hair follicles (Figure 1). That's how Moser's pairing technique—the technique to implant two FUs in one slit—was born. We did this as early as 1993 and therefore have been using the "pairing technique" for over ten years. We believe the pairing technique is very helpful to produce density and naturalness. While the exact figures vary from patient to patient, depending on the density and the natural arrangement of the patient's follicular units in the donor area, we might create about 1,200 slits in a typical case and actually implant approximately 2,000 grafts into these slits, with most of them being pairs (Table 1). We only charge for the number of prepared slits and not the number of follicular unit grafts implanted.

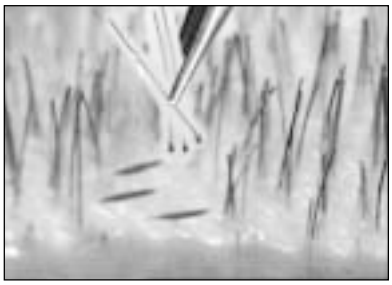

Figure 1.

For the pairing we combine:

a) 1-hair grafts and 1-hair grafts
b) 1-hair grafts and 2-hair grafts
c) 2-hair grafts and 2-hair grafts
d) 1-hair grafts and 3-hair grafts

Table 1. The Moser Pairing Technique: A Typical Case with 2,000 Grafts in 1,205 Slits

Grafts made by assistants	850 1-hair	1,050 2-hair	100 3-hair	2,000 total
Number of sites	160 1-hair slits	260 2-hair slits 100 1 + 1 160 2s	785 3- & 4-hair slits 480 1 + 2, 90 3s 205 2 + 2, 10 3 + 1	1,205 slits

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See pages 65–72 for Annual Meeting, Award Nomination, & Grant Application information.

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President's Message

E. Antonio Mangubat, MD *Seattle, Washington*


E. Antonio Mangubat, MD

What we think, we become.

Buddha (B.C. 568-488)

Buddha is still considered the source of life wisdom for many people, both as a religion and as a well of inspiration. We have all heard the saying, *"If you think you will fail, you're probably right."* We have come a long way in terms of artistry, knowledge and surgical skill in hair restoration surgery (HRS); yet our specialty is still an infant in the general world of medicine. One of my major goals this year is to make positive strides towards increasing the visibility and credibility of our specialty, and these have been outlined in the final draft of our new strategic plan:

1. *The ISHRS will demonstrate a measurable increase in the public and our physician-peer's awareness and perception in the value of medical and surgical hair restoration.*
   A. Obtain ACCME accreditation.
   B. Publish the ISHRS Core Curriculum for HRS in a peer-reviewed journal.
   C. Join traditional medical associations such as the AMA and other international medical organizations in order to improve peer physician relations.

This year, we have taken major strides to achieve these milestones and I think it is important to understand the significance of each of these items and where we are today.

Accreditation Council for Continuing Medical Education (ACCME) is a universally recognized organization that sets and administers educational standards and criteria for providers of quality CME for physicians. We strive for this accreditation because it is a significant credential to the medical community that we measure up to their standards; that our educational meetings and activities are of the highest quality and that ISHRS is serious about physician education. Dr. Paul Cotterill's *CME Committee* has taken full charge of this task working in tandem with our *Annual Scientific Meeting Committee* to put on the high quality educational offerings that fulfill ACCME requirements. ACCME accreditation is a long and stringent process but I predict we will have our certification within the next two years.

Publishing the ISHRS Core Curriculum for HRS (CCHRS) in a peer-reviewed journal has been a dream of mine for several years. Congratulations to Dr. Carlos Puig and his hard working *Core Curriculum Committee* for accomplishing this milestone this year. You may ask why is the CCHRS so important to us? Well, it is the first document in HRS history that actual defines our specialty and establishes the knowledge base that a competent HRS physician must possess to practice safely and effectively. Furthermore, it ties in closely with ACCME accreditation by defining the critical learning elements and guides our educational planning.

The ISHRS should become a member of other traditional medical associations like the AMA and other international organizations. This logic is simple; it gives us an opportunity to interact with our fellow physicians and to educate them on the incredible state-of-the-art of HRS. Dr. Martin Unger recently submitted a thorough and exciting report of his *Ad Hoc Committee on AMA Membership for ISHRS* concluding that the ISHRS is extremely close to being able to apply for AMA membership and possibly hold a voting seat in the AMA House of Delegates! There are several criteria and the ISHRS satisfies all criteria save two: *a)* at least 35% of our American ISHRS members must also belong to AMA to be eligible for the AMA Specialty Societies Section (SSS) and *b)* we must remain a member in good standing of the AMA SSS for 3 consecutive years. Currently 28%

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Co-Editors' Messages

Jerry E. Cooley, MD *Charlotte, North Carolina*


Jerry E. Cooley, MD

It is with enthusiasm and trepidation that I join Dr. Bob Haber in trying to fill the scary big shoes of Drs. Mike Beehner and Bill Parsley as co-editors of the *Forum*. What an outstanding job they have done over the past three years! Most of you know that these two are not only the finest of surgeons but also the finest of men.

At my first ISHRS meeting, held in Nashville in 1996, I had the good fortune to be randomly put in a foursome with Bill and Mike at the sponsored golf outing. Little did I know how the friendships that began then would strengthen and shape me over the ensuing years. They served as mentors for me, showing me what it means to be completely committed to improving our craft and how to conduct oneself with honesty and fairness. Over the years, we reunited frequently to play golf, sharing not only golfing tips but surgical and practice pearls as well. They never gave up on trying to make me a better surgeon. Sadly, I gave up a long time ago on trying to help them become better golfers.

The *Forum*, as it did in ancient Greece, provides a place for all of us to get together, to discuss and debate the ideas that are important to us. As the saying goes, half of our current medical knowledge is wrong, but the problem is we don't know which half. For hair restoration, our mission is to evolve and find these new "truths" and dispel the untruths. The result will be improved diagnostic and evaluation skills and better tools and techniques. Ultimately, our patients will get better care, which is what it's all about.

Unfortunately, this process of searching for truth can be a little messy. I was reminded of this recently after performing my civic duty by doing four days of jury duty for a robbery trial. Innocent or guilty? All twelve of us heard the same testimony and presentation of evidence. Yet, we all saw it differently and were evenly split prior to deliberations. During the ensuing debate, many of us changed our minds, suddenly seeing things in a new light after listening to each other. A few jurors never budged, refusing to even consider another's viewpoint, despite the judge's admonishment to be firm, but not stubborn, in our convictions. Some acted as if they had attached their opinion to their inner being, so to question or criticize their ideas was interpreted as a personal attack.

We see the same process at work in our own field. There are many questions and controversies facing us. The *Forum* will continue to serve as the record of our progress. No doubt we will find ourselves frequently disagreeing with one another. A fair, open-minded, and critical mind-set is necessary for our deliberations, for without it the truth will not emerge. Be firm, not stubborn, in your opinions. And let's agree to not make it personal and to have some fun along the way.

Jerry Cooley, MD

Robert S. Haber, MD *South Euclid, Ohio*


Robert S. Haber, MD

Greetings to the readers of the *Forum!* It is with a mixture of excitement and anxiety that I look forward to the next three years as co-editor. I have had the good fortune to serve the ISHRS in many capacities. Each of those tasks required a commitment of time and effort, and each was rewarded with friendships and an extraordinary respect for the Society and its members. Editorship of the *Forum* will undoubtedly be the most challenging task yet, in time and effort, yet I have no doubt that with the assistance of Cheryl Duckler, Victoria Ceh, and of course my good friend Jerry Cooley, this too will be rewarding beyond my imagination.

With this issue, Dr. Jerry Cooley and I become only the seventh and eighth editors in the *Forum*'s history, and we follow in giant footsteps that have laid the groundwork for a remarkable vehicle for the sharing of ideas. Dr. O'Tar Norwood's creation, in 1990, permitted surgeons to rapidly share ideas and thoughts with each other without the long delays inherent in peer-reviewed journals. He served as sole editor of the *Forum* for 5 years, until Dr. Richard Shiell ably assumed the burden.

Richard presided over the expansion of the *Forum*, and carried out his responsibilities not only with a keen eye and critical mind, but without benefit of the Internet. Eighteen issues later, it was time for him to rest, and he handed over the editorship to the dynamic duo of Drs. Dow Stough and Russell Knudsen. These two thought leaders put their intellect to good use, and over the next three years and 18 issues further expanded the *Forum* to include lengthier submissions and navigated through sometimes controversial waters with grace and style.

The past three years brought yet another new look and editorial style to the *Forum* under the stewardship of Drs. Bill Parsley and Mike Beehner. I've never known two finer men, both skilled as surgeons but also blessed with keen intellect and a sense of fairness that guided them well. The ISHRS membership has now grown accustomed to issues filled with a wide array of featured columns, historical insights, and cutting-edge articles that have both tracked and led the field of hair restoration.

Where do Jerry and I take the *Forum* now? We will continue to reflect the needs and desires of the membership. The *Forum*, like the ISHRS, is maturing, and like parents, the editors do not so much control what it becomes, but strive to help it become its best. The layout and color scheme has of course changed, but many of the features that have been enjoyed by the readers will be maintained. The *Forum* must always remain a vehicle for the honest exchange of ideas, however controversial, and it must be able to do this quickly.

So don't be bashful! Do you have something to say? Something to complain about? A new idea or technique you'd like to share? Write it up and send it in, as there will be many who would like to hear about it, and the *Forum* is your voice.

Bob Haber, MD

President's Message

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of our American ISHRS members also belong to the AMA. We only need 25 more of our members to join to satisfy this requirement and clear the way for the ISHRS to become an active voting member of the largest medical association in the world. I will be sending a personal invitation to all of our American members to join the AMA now. It would be a huge milestone to submit our application to the AMA SSS this year. The door is open to us; all we have to do is walk through it.

Dr. Nilofer Farjo chairs our international counterpart, *Ad Hoc Committee on International Medical Association Membership for ISHRS*. She has a more difficult job having to look in many different countries with potential language barriers; thus far all non-US organizations only allow individual physicians to join. We are an international organization and if any international member can contribute personal knowledge to this effort, please contact Dr. Farjo.

We are making huge strides in three major objectives in the first initiative of our strategic plan. By the time you read this message, the Board of Governors will have met for a third time this year and will have approved the complete strategic plan formulated in October 2004.

I must extend my deepest appreciation to my colleagues who volunteer their time on our behalf to make the ISHRS stronger. Together we have developed a unified vision and we are moving steadily forward. Consider Buddha's wisdom and apply it to ourselves. We must believe HRS is a specialty if we are to become a specialty recognized as credible in the eyes of our peers and the public. Again, I encourage all of you to become a part of our future and do your part: volunteer for committee work, invite a fellow physician to join the ISHRS, and American members join the AMA. There is so much that we have accomplished and yet so much left to be done.

E. Antonio Mangubat, MD

The ISHRS *Forum* Archives Article Database

Housed in the Members Only section of the ISHRS website, we are proud to announce the launch of a valuable new resource exclusive to ISHRS members...the Online Forum Archives Article Database. You may search the database by various criteria (e.g., keyword, author, issue, or advanced search) to locate past *Forum* articles. The database currently starts at Volume 9 and includes years 1999 to the present.

New... and Exclusively for Members Only

To Submit an Article or Letter to the *Forum* Editors

Please send all submissions electronically via e-mail. Remember to include all photos and figures referred to in your article as separate attachments (JPEG, Tiff, or Bitmap). Be sure to ATTACH your file(s)—*DO NOT* embed them in the e-mail itself.

Any person submitting content to be published in the *Forum* agrees to the following: 1. The materials, including photographs, used in this submission do not identify, by name or otherwise, suggest the identity of, or present a recognizable likeness of any patient or others; or, if they do, I have obtained all necessary consents from patients and others for the further use, distribution, and publication of such materials. 2. The author indemnifies and holds harmless the ISHRS from any breach of the above.

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Submission deadlines:
May/June, April 10 • July/August, June 10

Notes from the Editor Emeritus

Russell Knudsen, MBBS *Sydney, Australia*


Russell Knudsen, MBBS

Where To from Here?

With the almost universal acceptance of follicular unit grafting (FUG)/micro-grafting as the technique of choice, it is tempting perhaps to consider that the evolution of grafting from standard plugs to 1- to 4-hair grafts is now complete. After all, the grafts can't get any smaller or "more natural" can they? If so, what further new developments can make it worthwhile for experienced surgeons to attend scientific meetings? How can we make our "undetectable" and "completely natural" results any better?

There are two major aspects to hair restoration surgery: technical and artistic. The *technical* focuses on the mechanics of achieving quality grafts and their successful implantation so that reproducible, natural results are achieved. This area has provided major advances in technique in the past 15 years that have popularized this type of surgery to patients and surgeons alike. Scientific meetings are dominated by technique lectures that largely focus on the mechanics of accurately creating ever-larger numbers of grafts per session, and the implantation of these tiny grafts into tiny incisions or holes at ever-higher densities.

The *artistic* focuses on the planning aspects and arrangement of the grafts to achieve the patient's goals. This seems to have been largely relegated to discussion of hairline design and placement with the unspoken assumption that with modern FUT/micro-grafting, once you get the hairline design right, everything else falls into place. In my view, this is a dangerously simplistic view that threatens to continue to create unhappy patients despite superior technique.

The artistic area that continues to vex our profession relates to patient selection. In my view, the improvements in techniques have not made much difference to patient selection. The exception here is that a single session of FUT/micro-grafting looks natural from the first session (if at appropriate density). A decision to have no further surgery may, in certain patients, still produce an acceptable cosmetic outcome.

What has not changed is our approach to the young patient requesting surgery (i.e., under 23 years of age), or to the extensively bald patient with poor donor hair quality and/or quantity—the "marginal" patient. Unrealistic expectations on the part of the patient, or complacency on the surgeon's behalf, threaten to continue to harm our field. No amount of technical improvement, applied to an inappropriate patient, achieves an acceptable outcome. A recent article in *Dermatologic Surgery* suggested that the incidence of body dysmorphic disorder in patients seeking cosmetic dermatology is 12%. How many of us make that diagnosis in every 8th patient? Or 10th patient for that matter?

The irony is that although the technical improvements in our field have enlarged the pool of potential patients, they have also threatened our reputation as we increasingly see patients with both greater expectations and demands. Who among us has not recently experienced the following statement during consultation: "I would never have considered doing the surgery with the old plugs, but if it is completely natural and undetectable, and I can shave my head in the future if the baldness progresses, and there is no visible scarring, then I am happy to go ahead."? The temptation for us is to make soothing noises and go along with these increased patient demands. The aggressive marketing of FUE/FIT in recent years has convinced many prospective patients that "scar-less surgery" is now available. We need to be careful to emphasize what is likely to occur, not just what might be possible. Rather like promising everyone a great outcome after a single session of dense grafting. I continue to believe that it is to whom we say NO that determines our worth as surgeons. Realistic expectations create happy outcomes.

So, if we choose appropriate patients, how can we improve our results if technically we can't produce better grafts? The areas where we can still improve our results fall into two categories: planning and execution.

Planning improvements encompass techniques that help create the "illusion of density" for any given number of grafts performed (e.g., angle, orientation, direction, specific areas of increased density, shingling, specific planning of placement of 3-haired grafts, use of multi-unit grafts). In addition, prevention of further balding (offer of medications such as finasteride and minoxidil) may assist in the maintenance of the surgical benefit. In my view, most surgical patients may potentially benefit from the offer of medication in addition to the surgery. However, if patients commence medication, surgical planning must allow for the possibility that the patient will eventually stop medication and balding will resume. Our design must allow a fallback position that minimizes the cosmetic risk of the surgery despite further hair loss.

In addition, the vexing question of how (or whether) to treat a significantly sized thinning crown, particularly in the younger patient, continues to divide surgeons and provides no definitive answer.

Execution improvements might relate to the minimization of donor area scarring, techniques that help achieve a safe increase in graft density for any given session, and possibly the avoidance of post-operative anagen effluvium in both the grafted hair and the remaining recipient-area hair. We are still waiting for a definitive answer as to the comparative results of sagittal angle grafting (SAG) versus coronal angle grafting (CAG). Techniques to repair previous donor scarring might also make significant improvements, as well as techniques to repair poorly performed surgery. In addition, we await the coming improvements in graft-storage solutions that conceivably will improve graft yields.

In summary, it seems to me there remain plenty of reasons for both experienced and inexperienced surgeons to continue to attend scientific meetings. There is much left to improve upon.

See you in Sydney!

Russell Knudsen, MBBS