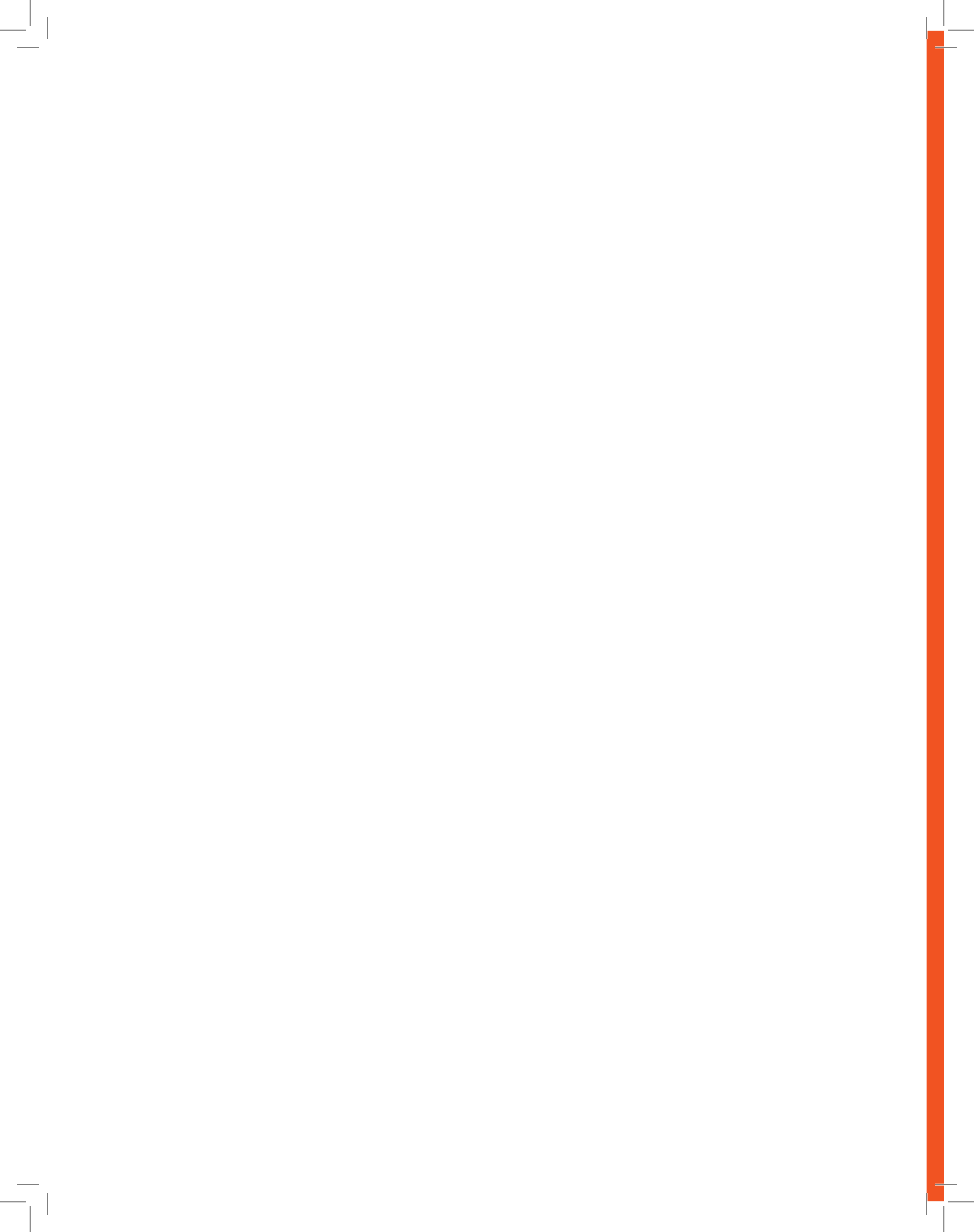


# HAIR TRANSPLANT 360

1



VOLUME 1  
2nd Edition

# HAIR TRANSPLANT 360

*for Physicians*

SAMUEL M LAM



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### **About the Cover**

The circular design on this cover is an *enso*, a Japanese word that means “circle” and carries the meaning of enlightenment, strength, elegance, and the universe. It has multiple, layered meanings. First, it is a symbol of the 360 concept in that this book and the entire series are meant to be very comprehensive in scope on the subject of hair restoration. Second, the circle signifies partnership that is needed to complete any worthy task, like the teamwork of physician and assistant. Finally, the incomplete circle



suggests that we all work on hair transplant or any subject about which we are passionate in an ever-improving journey, as mastery is an elusive and receding asymptote. Japanese Zen masters contend that the character of the artist is revealed through his interpretation of the *enso*, with artists who paint the *enso* on a daily basis as part of their spiritual journey.

Vision without action is merely a dream. Action without vision just passes the time. Vision with action can change the world.

**Joel A Barker**

Here's to the crazy ones. The rebels. The troublemakers. The ones who see things differently. While some may see them as the crazy ones, we see genius. Because the people who are crazy enough to think they can change the world are the ones who do.

**"Think Different" Campaign, Apple Inc**





*Dedication*

To Elsinore, the love and light of my life.

## *Donation*

*All profit that I obtain from this book will be donated to **Restore International***

We live in a broken world that cries out for our help. We live privileged lives and are granted the honor to help those in need. Restore International ([restoreinternational.org](http://restoreinternational.org)), founded by Bob Goff, works in India, Uganda, Somalia, Iraq, and Nepal. Restore India works to free those in bonded labor, sex trafficking, or otherwise exploited. Uganda is also a primary focus for the organization to help with human rights and education. There are 27 millions slaves of all kinds in this world, and your purchase of this book will help to end this horrible trade in humans that strips people of their freedom, dignity, and humanity.

# Foreword

The popularity of hair-transplant surgery as a career is probably at an all time high. I am contacted almost daily by colleagues from a variety of medical and surgical fields all asking how do they get trained and how do they get started in hair-restoration surgery. Invariably my advice to the novice is to first acquire 1–2 dedicated textbooks to educate themselves in the basics.

I cannot claim to have written a whole textbook, but I recognize the Herculean effort required to do so! I have contributed various chapters to a number of textbooks including Dr Sam Lam's *Hair Transplant 360, Vol. III*. However, it was Dr Walter Unger's *Hair Transplantation* (3rd Edition) textbook that served as my guide during my training in 1992 and for a good few years after that. Almost 23 years on, I'm still learning including when I'm asked to teach and write.

True, there are quite a number of textbooks, practical guides, and peer-reviewed articles in a variety of journals out there, but our field is evolving very fast and information needs to be updated fairly regularly. Dr Sam could easily have sat back feeling proud of his mighty effort with the 1st edition of this textbook. Therefore, he is to be congratulated and very highly commended for his desire to keep this book fresh and relevant to the budding hair-restoration surgeon.

The exciting aspect of this particular book is its format as a practical and instructional guide, as well as serving as a source of reference. I have worked closely with Dr Sam Lam as faculty and co-director on a number of occasions in a hands-on workshop setting. He is one of the most dedicated, focused, and passionate educators that I know and certainly inspired our students to understand and love the art and skill of hair transplantation.

Many visitors to my practice wishing to observe what this specialty is all about, make the common mistake of underestimating what is involved. They think it's simply about learning where to make the cut and with what instrument. I'm confident any beginner, or even a physician further along the line, will draw great benefit from this book. In addition to teaching the basics, it will help to gain a comprehensive understanding of the knowledge required to turn the novice surgeon into a more experienced one and the good surgeon into an excellent one, both in terms of aesthetically superior results and patient well-being now and in the future.



**Bessam Farjo** MB ChB

Hair-Restoration Surgeon, Manchester, United Kingdom

Editor, *The Trichologist Journal* (2005–2010)

ISHRS Platinum Follicle Award, 2012

ISHRS Past President (2007–2008)

A handwritten signature in black ink, appearing to be 'B Farjo', written in a cursive style.



# Introduction

## Volume 1 (2nd Edition)

The introduction to the first edition that follows this current introduction is still entirely valid and relevant, so I have asked that the publisher retain it for the readership. The goals and intent have remained the same but the vision has been updated and expanded. This new edition was prompted initially by the publisher's request to write it, as the inventory of the first edition was nearly depleted. Emina Karamanovski Vance, who has worked with me in my clinic now for over a decade, exhorted me to rise to the occasion to write this edition, and she would do the same to revise her Volume 2. Reluctantly, I realized how right she was that I should undertake this prodigious assignment, as so much has radically changed during the short span of time that a new edition was truly warranted. The biggest change since writing the first edition was the advent of bioenhancement/regenerative medicine technology that I adoringly refer to as "fertilizers for hair growth," e.g., ACell Matristem, Platelet-Rich Plasma (PRP), liposomal ATP, etc. Since I introduced these methods into my practice, I have witnessed a substantial change in my results, yielding more consistent and earlier-onset growth.

Newer understanding of medical therapies and their side effects are covered in Chapter 1, including side effects with finasteride, use of Low-Level Laser Therapy (LLLT), new medical protocols for women, etc. The heart of this book really is Chapter 2, the operative chapter, which has been extensively revised. Beyond the introduction of bioenhancement methodology, I added new sections to encompass subtle but profound evolutionary changes in my techniques, which would be too numerous to cite herein. Along with these many changes in techniques, I have revised the pertinent videos to help the surgeon study the methodology in a way that I do not believe can be conveyed in a written text alone. I have completely rewritten Chapter 4, presenting new case studies that are updated and reflect my change in operative technique.

Chapter 5 represents a new addition altogether that did not exist in the first edition. This chapter focuses on helping the reader practice hairline design using stepwise instruction and recipient-site creation on melons to improve one's skills. Having run my St Louis Hair Course now for close to a decade, I have learned a lot of tricks on how to teach new students the basics of performing hair-transplant surgery. Participating in this course has taught me the importance of repeated physical practice in acquiring the art of hair-transplant surgery. Observing students perform basic hair-restoration tasks has also shown me the full gamut of mistakes a beginner makes and has given me the opportunity to develop easy ways to correct those mistakes in a very short timeframe. Accordingly, I have incorporated those pearls of wisdom herein. A video also accompanies this chapter to complete the didactic curriculum.

Perhaps the biggest change to the vision of this book series since the inception of this project is that there are now four volumes rather than only two. When this book project was initiated, it was conceived as a volume for physicians and a volume for assistants, the latter written by Emina. In the past few years, I have expanded this book series to Volumes 3 and 4, which offer a multi-author perspective on the subject. Volume 3 is the largest hair-transplant book ever written and gorgeously printed in full color with numerous videos. Volume 4 is the only major hair-transplant book written on follicular unit extraction (FUE). Further, this book series is the only one ever printed on the subject of hair restoration. I hope this book series serves to benefit you, the reader, in small or large ways to help advance your practice. I also hope that the books inspire you to perform better hair surgery so that together we can advance this noble field about which I am so passionate and to which I remain dedicated in my heart and soul.

**Samuel M Lam**  
Dallas, Texas, USA



# Introduction

## Volume 1 (1st Edition)

*Hair Transplant 360* is conceived as an entirely new project idea in which the physician and the assistant have each been afforded an equally, authoritative voice: Volume 1 is written by a physician for physicians and Volume 2 is written by an assistant for assistants. Hair-restoration surgery stands apart from other surgical endeavors in that the outcome is predicated on the quality of every team member rather than resting on the shoulders of the physician alone. This book serves to bridge that divide as thoroughly as possible by providing a 360-degree perspective on how to perform superior hair-transplant surgery from the alpha to the omega for both physician and assistant. As part of that vision, every reader (physician and assistant alike) should try to digest the information contained in both volumes for a comprehensive and fundamental understanding of hair transplantation.

I have written this first volume for physicians with the goal to help a beginning hair-transplant surgeon to practice the safest, most artistic, and technically superior hair restoration possible. With that objective in mind, the depth of this subject should also hopefully enlighten even the most seasoned hair-transplant practitioner. Preparing for the American Board of Hair Restoration Surgery, I realized the severe deficits in my own understanding of the field, particularly when I should not be operating on a prospective patient. Accordingly, I have focused the first chapter on the medical side of hair restoration, including the basic points of anatomy and physiology, processes of hair loss, diseases that preclude hair-restoration surgery, along with practical topics like consultation, marketing, and preoperative planning that every physician should know before beginning to operate. Without this front-end knowledge, a physician cannot aspire to be a great surgeon.

When it comes to surgery, this book stands as an exquisitely detailed blueprint of how to do it from one's surgeon's perspective, with all the attendant biases to which I will fully admit. However, in my estimation multi-author projects can inherently lead to confusion on the reader's part of how exactly to perform a given procedure. This book offers a stepwise practical guide on how to undertake the technical details of hair-transplant surgery from start to finish. Further, extensive illustrations, photographs, and videos that I have personally designed and developed for optimal educational value lavishly support the text. It is my hope that this book will become the most practical guide on how to perform hair-transplant surgery safely and effectively that is available on the market.

Beyond technical expertise, hair-transplant surgery is a creative process that can express individual artistry more than I could have first imagined when I started in this field. I had the concept that making countless incisions to place countless grafts into them would be a tedious, dull, and boring chore. Instead, I have been awakened to the creative side of hair transplantation with designing patterns that are a work of art and that fit the aesthetic needs of a patient. This entire volume is suffused with my passion for the artistry required to perform superlative hair transplantation, a subject that I believe has been largely ignored in other textbooks. The artistry is most lovingly captured in the concluding chapter focused on case studies demonstrating how artistic hair transplantation can be practically implemented.

I would like to thank Emina, my co-author, for helping me shape our vision for a glorious world where ethical, artistic, and technically wonderful hair restoration can flourish. I am thrilled that she can walk, climb, cry, laugh, and smile broadly beside me on this never-ending journey of better results for deserving patients.

**Samuel M Lam**  
Dallas, Texas, USA



# Acknowledgments

I would like singularly to acknowledge Dr Emina Karamanovski Vance with whom I have had the distinct honor and privilege to work for over the past decade. She is indeed the one who exhorted me to rewrite the first edition of this volume despite my protestations to the contrary and further undertook a meticulous and thorough editing of the revised manuscript, challenging me to improve, expunge, and elevate the content. I am truly indebted to her passion and dedication to excellence in both our mutual clinical work as well as in our varied academic pursuits.

Finally, I would like to thank Mr Jitendar P Vij (Group Chairman), Mr Ankit Vij (Group President), Ms Chetna Malhotra Vohra (Associate Director), Ms Sheetal Arora Kapoor (Development Editor), and the production team of Jaypee Brothers Medical Publishers (P) Ltd, New Delhi, India.

**Samuel M Lam**



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## **VIDEO 2**

Chapter 2: Regenerative Medicine Preparation and Execution

## **VIDEO 3**

Chapter 2: Donor Harvesting and Closure

## **VIDEO 4**

Chapter 2: Recipient-Site Creation—Sagittal and Coronal Techniques for Hairline and Central Density  
(Shorter Video)

## **VIDEO 5**

Chapter 2: Recipient-Site Creation—Sagittal and Coronal Techniques for Hairline and Central Density  
Including Temporal Point Reconstruction (Longer Video)

## **VIDEO 6**

Chapter 2: Recipient-Site Creation: Crown Design

## **VIDEO 7**

Chapter 5: Graft Calculation and Planning and Recipient-Site Creation on a Melon for Practice