

FASCIA

SEVENTH EDITION EMAG

Featuring photos by Anna Katharina Rowedder



07

EDITION

I would like to welcome you to our 7th Anatomy Trains E magazine. This edition had to be all about Fascia after being so inspired at the Fascia Research Congress in Berlin. So many stand out speakers and some great leaps forward in Fascia research.

The beautiful images on our front cover and on our contents page are by Anna Katharina Rowedder and they feature in the Atlas of Human Fascial Topography book. Anatomy Trains sponsored Anna's work and displayed her images in our booth as well as on the second floor of the Urania Center at the Berlin Fascia Research Congress. These images show just how beautiful and complex the human form is and how lucky we are to work with these tissues.

Our first article is an interview done by Massage Magazine featuring our very own Thomas Myers and we are grateful to be able to share it in our magazine. We have a great article on Perifascia by Gil Hedley and we have also included a couple of links to Gil's videos in the article. It's a pleasure to have David Lesondak featuring in our E mag again with his article - Why Fascia Still Matters.

The Plastination Project had an incredible display at the conference - our very own AT teacher Lauri Nemetz was a member of the Fascial Net Plastination Project and she shares her thoughts and some beautiful images. I would like to say a huge thank you to the Plastination Project for allowing us to show these images. I had so much fun interviewing Bruce Schonfeld, the man behind The Secret Life of Fascia movie, and so much more as I found out.

Our Teacher in Focus is slightly different this time as we have three new members to our teaching team and I wanted to showcase all of them in this edition. We have teachers from Canada, Australia and Poland.

If you are planning your 2019 goals and projects, we have included all our workshops in the back of this edition to help you plan ahead.

As always, I have so much fun putting these magazines together and I am constantly being reminded of the amazing talent in this world of Fascia.

Enjoy and I hope you feel as excited and inspired as I did after reading all about Fascia ...

Julie



TELL ME WHAT IT IS YOU PLAN TO
DO WITH YOUR ONE
WILD AND PRECIOUS LIFE

MARY OLIVER

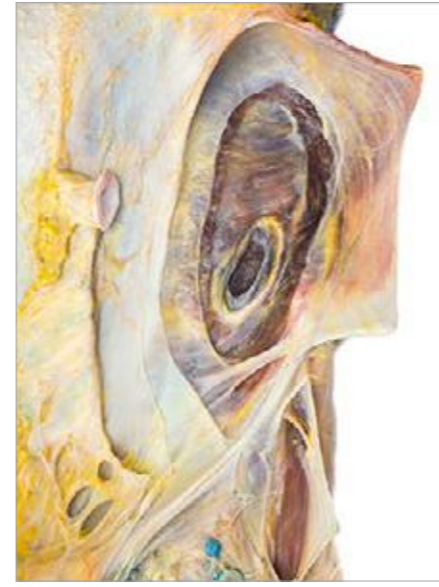
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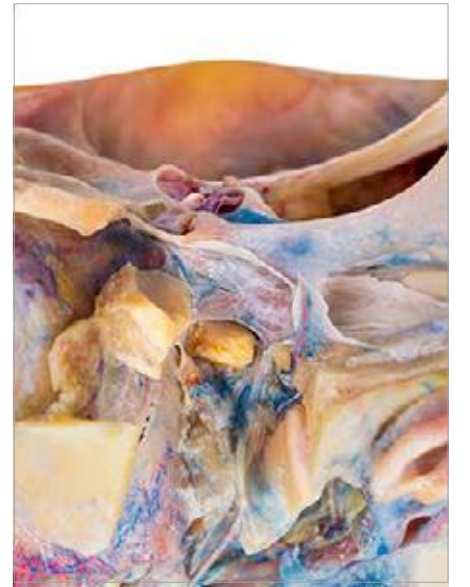
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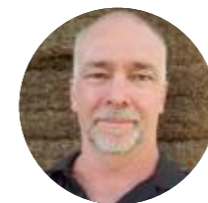
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THOMAS MYERS

MASSAGE MAGAZINE INTERVIEW

THANK YOU TO THE MASSAGE MAGAZINE FOR ALLOWING US TO FEATURE THEIR INTERVIEW BY KAREN MENEHAN.

Thomas Myers is the founder and creator of Anatomy Trains, a method rooted in structural integration that provides a system of understanding the fascia and how the human body negotiates between stability and mobility. He has practiced integrative bodywork for over 30 years in Europe, the U.K. and the U.S., and presented at the prestigious International Fascia Research Congress and at many other bodywork and massage conferences.

Tom is also a MASSAGE Magazine All Star, one of a group of body-therapy masters who have dedicated their lives to empowering and informing massage professionals. These innovative therapists and teachers are educating the magazine's community of massage therapists in our print magazine, on our social media channels, and on massagemag.com.

Karen Menehan: Tom, let's start off with you telling us what your life was like before you became a bodywork practitioner.

Tom Myers: Well, I grew up where I live now, in a very tiny town in Maine. I went to a two-room schoolhouse. I had very much of an outdoor education to myself—but I also grew up in a New England family where we didn't touch much.

We're not a demonstrative family. So, it was a revelation to me when I ran into massage in my early 20s and just was fascinated by what could be done by putting your hands on somebody else's body.

It was not only about fixing things, but about healing oneself more. And that was just such a revelation to me that I guess I have been at this for almost 45 years now and am still fascinated—still very much interested and curious about this profession.

KM: [Bodywork] has improved my life immeasurably. One of the things that you have written about on your website a lot is how deep bodywork releases tensions and connects us to the essential individual, as you term that, within. Something else I've read, not on your page, is that Americans spend on average two-and-a-half hours a day, or about 75 hours a month, on their smartphones. I'm wondering what you think our culture would be like if they spent at least two of those hours getting massage or bodywork every month instead.

TM: I've got to tell you, I'm 70 years old and I'm as addicted to my phone as anybody. So, even old people [have] really glommed onto this idea of connecting to the rest of the world [and it's] a joyful thing that we've all been really excited about. Now, right now, that means we're interfacing with screens that are 25 centimeters away from our eyes—so we fix our eyes. We fix our hands.

We fix our shoulders. And often we're sitting in a slumped position when we're doing it. So, sure, it would be much better for bodies if we spent those two hours getting a massage or indeed, spent those two hours moving in a healthy way.

But I don't think that's going to happen, Karen, because I think people really like being connected to their cell phone and connected to the rest of the world.

This technology that we have is audiovisual. You can see things on the internet or you can listen to a podcast or watch a YouTube video. But there's nothing in the kinesthetic sense. So, if you're getting a massage or if you're moving in a healthy way, you're getting a kinesthetic stimulant that you simply do not get, so far anyway, from the internet. You have to counterbalance the time that you're spending on your smartphone with time inside your own body, inside your own experience.

KM: Let's talk about the type of hands-on work that you teach. Your work, Anatomy Trains, is rooted in structural integration. I'm wondering if you can give us an overview of what kind of manual therapy this is and how it's different from traditional Swedish massage.

TM: Many of the people who are doing structural integration started out doing Swedish massage. I love a Swedish massage. I get one every week, if I can. That is the kind of thing where you often are lying on the table and you go off into dreamland

and somebody works on your body. It feels much better, and that's great. I love drooling into the sheet as I'm taken down into my parasympathetic side by a Swedish massage. That's not what we're trying to do in structural integration.

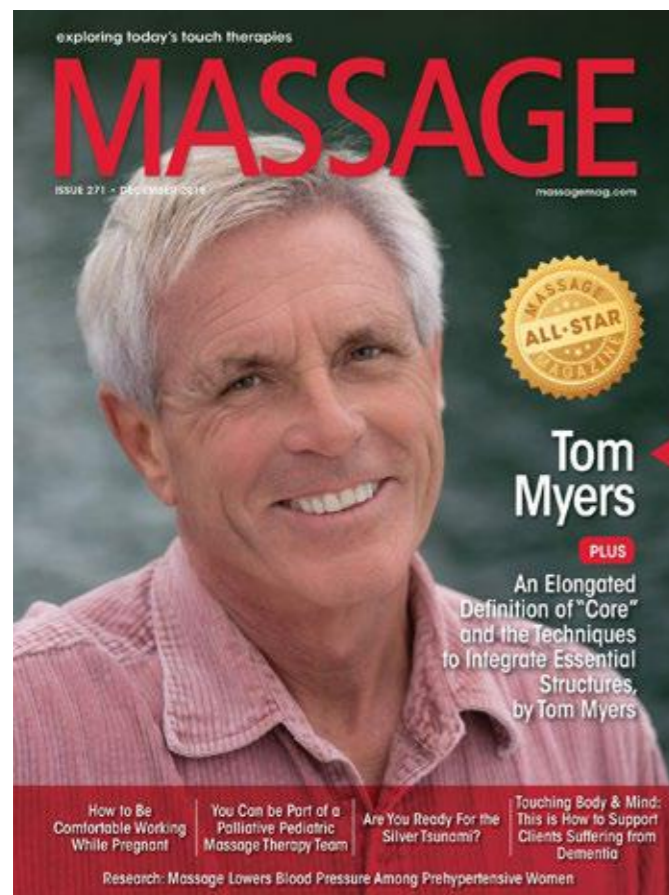
What we're looking at in structural integration is where are the places that you haven't moved for a long time? We all move our bodies. But that doesn't mean we're moving the whole body.

So, structural integration is designed to do three things that are a little bit different. One is we look at people beforehand to see those patterns. We watch them walk. We watch them do things and see where are they moving and where are they not moving. And we're tending to get our hands not always where they're painful, and not where they are already moving well, but going into the parts that don't move well. Parts that don't move well get stuck in the fascial fabric of the body. It's not enough just to relax the muscles. It's not enough to give them a different kind of mindfulness. We actually have to open the tissue that has been closed for many years. Now, it could be closed many years because they don't use it. It could be closed for many years because they have a surgical scar or an accident [or] some kind of trauma that happened there, or it can be an emotional thing.



Photo credit Cig Harvey

“ STRUCTURAL INTEGRATION IS SUITED TO THOSE PEOPLE WHO WOULD REALLY LIKE TO *TAKE THEIR MASSAGE DEEPER* AND TO BE ABLE TO AFFECT PEOPLE’S MOVEMENTS IN A MORE PROFOUND WAY. “



In structural integration, we're looking for how can we get the body fully moving, and can we find those places that are stuck either due to physical trauma or emotional trauma, and get those to be included in the body image, and get those to be included in the body movement? So, that's number one.

The second thing is this orientation to the fascia. Now, I want to be clear. You can't touch a body without touching the fascial system. It's not that the fascia is something new. That fascia has been there all along—and we've been working with it all along. Every time you put your hands on a body, you're working with the fascia. But if you're thinking muscles or you're thinking joints, as a chiropractor or physiotherapist might, you could miss where this fascial fabric has been tied down. That becomes a limiting factor in people [when] restoring their movement. So, the second thing is this fascial idea.

The third idea is that we work in a series of sessions so that we work progressively over the whole body, rather than doing the whole body in one session.

KM: You have launched the Anatomy Trains Structural Integration Certification Program, which is a hybrid learning experience for people. Tell us about that.

TM: Most of our students are people who have been massage therapists for, anywhere between three and ten years and have kind of hit on the top of their original training and are looking for something else.

Structural integration is suited to those people who would really like to take their massage deeper and to be able to affect people's movements in a more profound way. I'm not saying anything bad about massage by saying that. The regular massage is great stuff. It's just when you start looking into changing people's patterns, then you have to be able to work with more depth, with more anatomical proficiency, than is usually given in the initial massage therapy training.

So, what we've done with our training is to try to put everything that we can online so that our students can use their own time and their own schedule to get the anatomy and the background and evolution and embryology and things that we'd like them to have.

KM: I've gone through the Rolfing, or structural integration, 10-series twice now and it's been life-changing. I'm taller and I stand differently. So I know, as a client, it's been profound.

TM: A lot of us, and I number myself in this, got into the bodywork profession because we wanted to be of help. And it's quite easy when you want to be of service to other people to say, "Oh, well, don't mind about me. I'm just going to be in service to you—so this is all about you. It's not about me." And that's true. But if you really want a long practice, you have to pay attention to yourself, to your own development. Am I developing spiritually? Am I developing emotionally? Am I getting bodywork, this stuff that I give out? Am I actually going and getting some myself?

Self-care for a practitioner is really part of your responsibility as a practitioner. It's not extra. It is a requirement of the job that you take care of yourself and you develop yourself.

You and I know—we look at the statistics that a lot of people get into the massage profession and they're back out of it again within five years. You can probably tell me the figures of what it actually is.

KM: It's closer to three years, unfortunately.

TM: So, I'm very sorry to say this. But I'm an old man and I can say it. You don't really get good until you've been at it for at least five years. We need people to be earning a living and taking care of themselves so that they get to be those long-term practitioners who will, one, teach the next generation, and two, push the profession along by developing something new, and number three, really be able to work with their clients in a holistic way, not just the way that you happen to have been trained or just the way that you like to work. You really need to be working in a way that that person needs to be worked. And that means having a wide vocabulary of touch. You just can't do that if you're asleep.

You've got to be awake in your practice and taking on new stuff.

KM: Thanks, Tom.

A FEW THOUGHTS ON

Perifascia

BY GIL HEDLEY, PH.D.

"Fuzz" is a silly and fun word which I latched onto some 25 years ago when I began studying human anatomy in earnest. I didn't know what else to call this stuff I was seeing during dissection but hadn't seen in my anatomy texts. Perhaps that is because dissection images in books reveal completed, perfected and idealized tissue presentations, rather than images of the dissection-in-process which is a bit messier (and possibly more instructive). I wasn't too sure this white cotton-candy-like fibrous fuzz showing up between so many adjacent named structures even belonged there.

Tom Myers had taught us in our Rolfing pre-training about hydrogen bonding in our connective tissues. I formed pictures in my mind. In the practitioner training we learned to "differentiate" the tissues of our clients. I took my reading of Dr. Rolf at her word that tissues should glide over one another like silk stockings. And, I had imagined "muscles" to be a bunch of discreet nameable units tethered to bone at their ends, or to various fibrous septa. Put all of that together and it's no wonder I might have concluded that perhaps that "fuzzy stuff" that yielded to my fingertips when placed in tension during the dissection process might be the footprints of hydrogen bonding and aberrant tissue adhesion. I wondered if this was exactly the stuff that I supposed I was manually freeing up in my clients.

Over the course of ten years this story developed into "The Fuzz Speech," which I recorded as a lark while filming The Integral Anatomy Series. By then, around 2004, I had already started to call this tissue "filmy fascia." In anatomy, when you find something once or twice, it's called an anomaly. When you find it every fifth or tenth time or so, we'll call it a variation. When you find it 100% of the time, we start to call that human anatomy. So it was with that fuzzy stuff. It was always there! Live and learn. And anatomists did have a name for it. They called it loose areolar connective tissue. Despite being given a name, it somehow didn't rank high enough to get its own image in the anatomy books, no less much discussion, being, as it were, the stuff you scrape away to get the image that actually did make it into the book!

Still, some folks who believed otherwise would insist to me that it was a product of the embalming process, or that it "grew" in the dead. Not so. Our normal, healthy bodies, 100% of the time, include these tissues. Embalming, however, does significantly change the texture and appearance of these tissues. Embalming fluids are used to preserve the body and extend storage and study time. Those fluids which are introduced include desiccants, which help to chemically dry and set-up the tissues in what amounts to a kind

of chemical "cooking" that renders the tissues fixed, preserved. However, embalming does not propagate the production in the body of anything that is not already there.

It merely sustains it in its shape and dries it out a bit, enabling one to explore the form over an extended period without it decaying. Good dissection takes time and you only have to read Leonardo's journals to know the challenges one faces doing art/dissection of unpreserved tissues in a rush on a cold winter's night in Florence!

It turns out that "filmy fascia," which is a distinct tissue texture with its own structural organization relative to either superficial or deep fascia, is at the interface of all tissues demonstrating a capacity for differential movement in the musculoskeletal system. Because the tissues of the body are continuous, nature has figured out that to generate complex differential movement of tissues with varying textures and functions, we need a healthy complex of filmy, superhydrated fascia between them. In the dissection process you pull apart that membranous fascia intervening there between two structures capacitated for differential movement, and it looks fuzzy. That's because it has dried out a bit and you are tearing apart the "felt" fiber organization, which is demonstrated by that

cloud of "cotton candy." The same phenomenon is demonstrated in live tissue by JC Guimberteau, that I demonstrate in cadavers. We are seeing a membrane in tension, being torn. What is important to remember is that in situ, in function, in the living, it does not look like that fuzz at all! The appearance is the artifact of the process of taking the tissue out of its anatomical "normal."

Undisturbed, this tissue is nearly transparent and easily overlooked. A filmy mucoidal membrane, this slippery interface, this movement facilitating membranous system, functions as a fascia. It is an aggregate of connective tissue which is dissectible into a sheet, which wraps other tissue. I finally decided to call it perifascia after ten years of calling it "fuzz," and another thirteen years of calling it "filmy fascia" because it is found, among other places, around and near (peri) fascia. It's a fascia fascia!

Perifascia (loose, areolar connective tissue in Grey's anatomy) is easily distinguishable from subcutaneous adipose (superficial fascia in Grey's Anatomy) and dense regular fibrous fascia (deep fascia in Grey's Anatomy), both in dissection and in palpation. Superficial fascia is a relatively "fluffy" layer found in abundance immediately continuous with the dermis, so that it is also called the "hypodermis."



This adipocyte and lipid-rich layer has a distinct yellow-orange color, thanks to the presence of carotene, ample fatty deposition and a spongy look in cross section. When you palpate it perpendicularly through the skin, it demonstrates a characteristic buoyancy.

Now if you place a broad palm in contact with the skin and drag the skin with its underlying hypodermis to and fro, you will demonstrate the slippery sheering interface between the superficial and the deep fascia. This is anatomically represented by the perifascia. You will, however, not find perifascia underlying 100% of the undersurface of the superficial fascia. It is characteristically absent in the face, palms of hands, soles of feet and various other key points anatomically where slipperiness is less serviceable to the human organism than secure fixation. We can't be walking on banana peels after all. The deep fascia consists of more orderly arrays of relatively thicker and linear bundles of collagen fibers. Perifascia both underlies the deep fascia as well as overlies it. Perifascia enables the superficial fascia to shear over the deep fascia and it enables the muscle tissue to shear under the deep fascia. It is the anatomical basis of "play" in the musculoskeletal system.

Play with it! Palpate the different surfaces of your body and notice the differences in "excursion potential" of the skin and superficial fascia over the deep. To readily access the deeper membranous layers of perifascia beneath the deep fascia, palpate to the deep fibrous layer and then actively move the muscle tissue underneath. You will feel the differential movement of the muscle relative to the deep fascia and in so doing you will intentionally engage the perifascia. This is not a new technique. We are simply adding here some anatomical information to specify the intention of the touch.

You have always been touching and engaging perifascia. But if you didn't know it was there, you were doing so accidentally. Now you can do it on purpose.

But why bother? Well, because it's there! If you want to give, or take, a thorough tour of the human body, you do well to identify what is below the surface with some dollop of knowledge. If the perifascia is as implicated in differential movement as its apparent distribution, structural and physiological properties strongly suggest, then it would also be implicated in movement inhibition. This is a superhydrated movement interface. Stasis, dehydration and inflammation lead to changes in the tissue. Small changes in hydration amplify dysfunction at many levels. The hydrogen bonding I learned about from Tom in my pre-training is indeed taking place in these tissues. This is however a microscopic phenomenon, contrary to my earlier macro-imaginings. Along with the fiber crosslinking and other chemical alterations to which chronically static, dehydrated and inflamed tissues are subject, the perifasciae shift from slippery to gummy. Lowered viscosity can fortunately be reversed through touch and movement. Chronically gummed up tissues however are at risk of the formation of crystals from complex combinations of fats, proteins and sugars. Brittle tissues are harder to recover from than merely gummy ones.

Perifascia is worth adding to your sense of what's in there. It is easy to access: move! But if you are moving in the same old ruts as always, some of your tissues will retain their vibrant healthy sheer capacity, while other tissues will be "set aside," as it were. So explore movement deeply. Find the unfound places in yourself and let yourself play there again. Become a somanaut, courageously navigating your inner space. Enjoy!



VIDEOS



[HTTPS://WWW.GILHEDLEY.COM/P/CLIPS](https://www.gilhedley.com/p/clips)



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COMING TO LIGHT *MY OWN JOURNEY*

WITH THE FASCIAL NET PLASTINATION PROJECT

BY LAURI NEMETZ,

ANATOMY TRAINS ® FACULTY
AND ANATOMY TRAINS ® DISSECTIONS



PHOTO WITH LAURI NEMETZ, JEAN-CLAUDE GUIMBERTEAU AND GIL HEDLEY
AT THE FASCIA IN A NEW LIGHT EXHIBITION, BERLIN 2018

INTRODUCTION

I am thankful to Anatomy Trains® for their sponsorship in getting me to Guben, Germany last summer where I participated as a member of the Fascial Net Plastination Project with an incredible team from around the world. Like many people in our fascia community, I had long imagined that we should be able to create fascia plastinate models. Several years back, after a presentation at the Experimental Biology conference, I spoke directly with representatives from the Plastinarium in Germany to inquire if this might be possible. Others were simultaneously asking the same question from various corners of the world. However, this work was destined to wait until just the right group of people came together with a united vision and the support of the Fascia Research Society. It seems the momentum of a passionate, international team has shown the Plastinarium that there is growing interest in this field of study for research and for the larger public. What began as a small project with ambitious dreams has grown to the world's first exhibition of 3D, human fascia, plastinated forms at the recent Fifth International Fascia Research Congress in Berlin, Fascia In a NEW LIGHT: The Exhibition.

I was thrilled to be invited to be part of the project over a year ago by Gil Hedley, who is part of the project's scientific advisory board. Two teams came together, first in January and then in June of 2018, with a final group organizing the exhibition to share the work of the project. Part of my own extended Anatomy Trains family involved in the project include Gary Carter, David Lesondak, Gina Tacconi-Moore and Alison Slater. Team members came from all over the globe, including England, Austria, Finland, Israel, Switzerland, USA, Australia, Singapore, Brazil and Germany. Everyone volunteered their time and talent as well as faced the challenges of clearing schedules to work in this enormous group effort.

As noted on the Fascia Research Society website, "In January 2018, the Fascia Research Society partnered with Somatics Academy and Gubener Plastinate (GmbH), to embark on a new journey in fascia anatomy education with the world's first Human Fascial Net Plastination Project. Directed by fascia research scientist Robert Schleip, professor of anatomy Carla Stecco, and with the assistance of clinical anatomist John Sharkey, the project is taking place at the world-famous Plastinarium in Guben, Germany.

(<https://fasciaresearchsociety.org/plastination>).

MY OWN BACK-STORY WITH THE PROJECT

I truly believe that how we perceive the body changes with what we can literally see at any point, either because of our own thought limitations or dissection techniques. We have all heard the stories of how fascia has traditionally been taken away from our pristine images of muscle and bone. However, I have always been intrigued by the older illustrations from anatomical books such as Jean-Baptiste Marc Bourguery's beautiful images of the fascial septa or the historical varnished preservations from the 1800s that often destroyed many tissues but occasionally kept a partial interosseous membrane intact.

My own history of coming into the project started around 2014 when Tom was showing Jeffrey Linn's spinning image of a thigh from the Visible Human Project (2003), which was computer-generated to show the thigh with all tissue with the exception of the larger areas of fascia. Tom often mused that it would be wonderful to see this someday as a separate model.

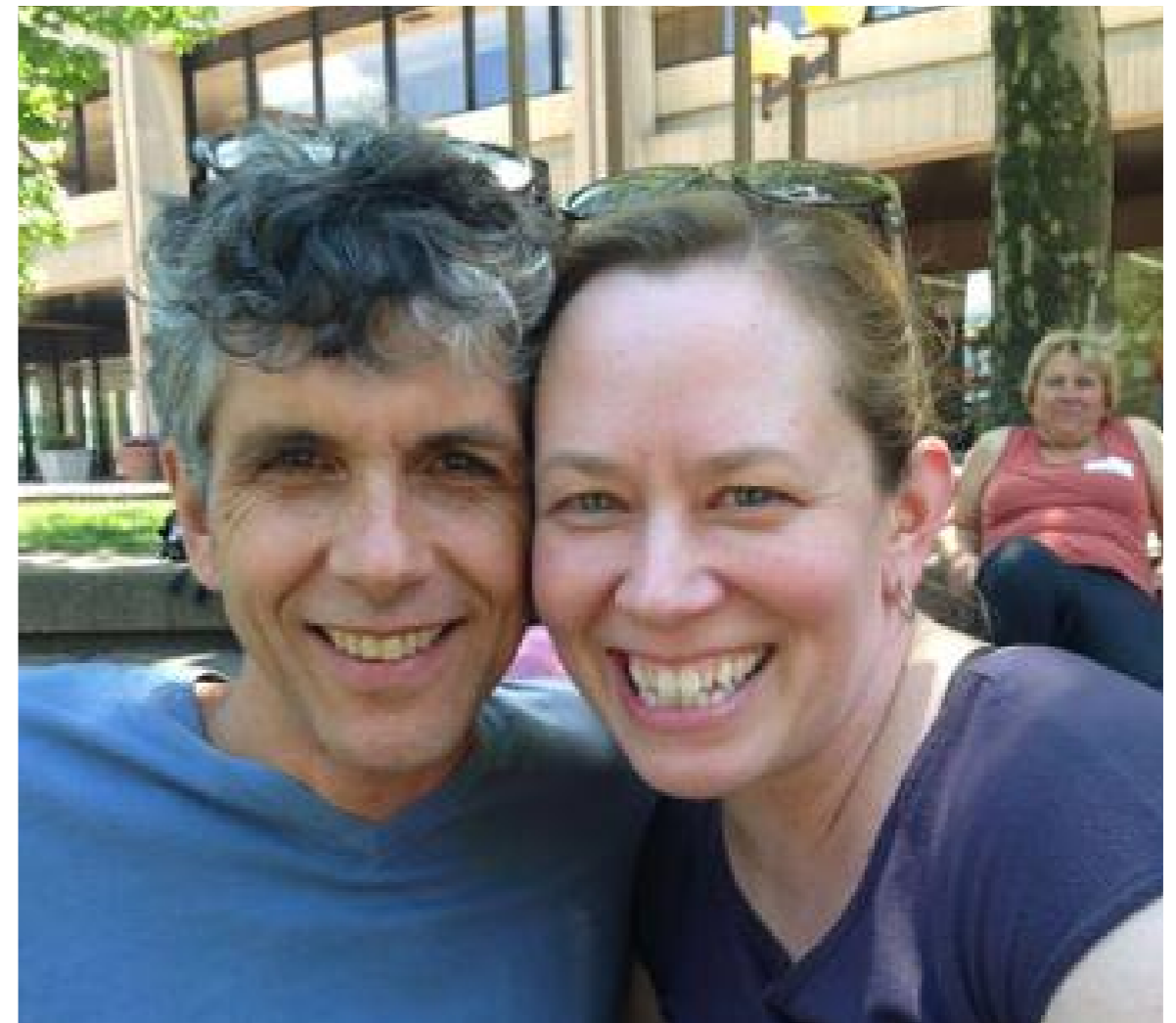
Soon after, I started to investigate the work of Dr. Doris Taylor, the Director of Regenerative Medicine Research (Texas Heart Institute). Her work continues to be concentrated on de-cellularizing organs to leave the extra-cellular matrix behind as a scaffold for re-seeding the organ with healthy cells for organ transport. In my mind, this was immediately a way to create a fascial model and I began a process of creating fascial hearts, and then later fascial kidneys, all stripped of their muscle fibers but leaving behind their fascial structures. Much of this work I outlined in the Anatomy Trains blog (2016), "Creating Fascial Organs: Exposing Organs' Fascial Matrix" (<https://www.anatomytrains.com/blog/2016/02/17/creating-fascial-organs-exposing-organs-fascial-matrix-by-laurice-nemetz/>)



The very first public presentation of this work was at the Fascia Research Congress in 2015, “The Heart of Fascia, Initial Steps to a Three Dimensional Model” (http://www.fasciacongress.org/2015/Abstracts/33_Nemetz.pdf)

I spoke with Gil Hedley about the possibility of doing this process with more superficial layers and was later invited by Gil to witness some of the work he developed in lab, along with dissection lab assistants Juno Ujjayi and Christopher Tortaro. He outlined this in the 10-minute film (“Fascia is all around us!”) that he shared at the congress and has put on his website: <https://www.gilhedley.com/p/clips>

Gil became interested in getting the lipids out of the subcutaneous adipose layer manually (as opposed to my basic chemical process) to reveal the superficial fascia that he likens to a “protective fleece, a comforting cloud” and to show its inherent strength. His latest interest is in the area he calls the perifascia, the filmy layer highlighted as the “fuzz” in his previous talks, which is layered thinly around and into the deep fascia. His additional work places the importance of looking more closely at these tissues and their body-wide relevance.

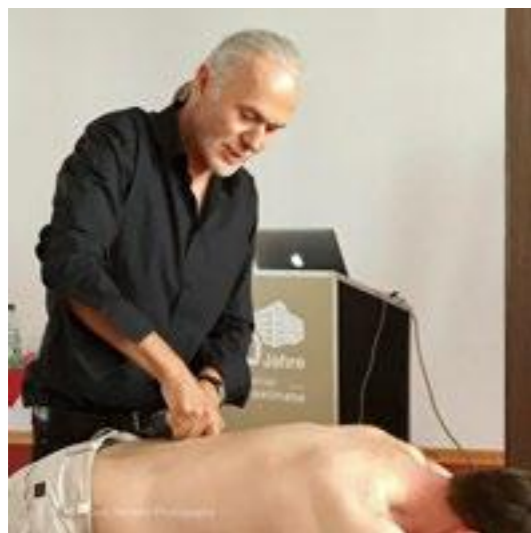


Fascia atlases such as Carla Stecco’s Functional Atlas of the Human Fascial System (2015) and Hanno Steinke’s Atlas of Human Fascial Topography (2018) are new additions to the concept of anatomy that help to expand our understanding of the relevance of the fascial connections. Additional pioneers in the field of fascia that have been exploring this ground shift in imaging the fascia system include Jaap van der Wal’s early writing about the fascia pockets in his 1988 doctorate thesis, Peter Huijings’s, PhD (Vrije Universiteit Amsterdam)

3-D reconstructions of fascial continuities in the crural compartments of rats, and of course Tom Myers’ concept of Anatomy Trains that was initially theory and has now been subsequently dissected and studied by others in the field such as Jan Wilkes.

Each time we open up the way we are looking at things, our understanding of functionality and form shifts.

THE PROCESS AT THE PLASTINARIUM *AND TEAM MEMBERS*

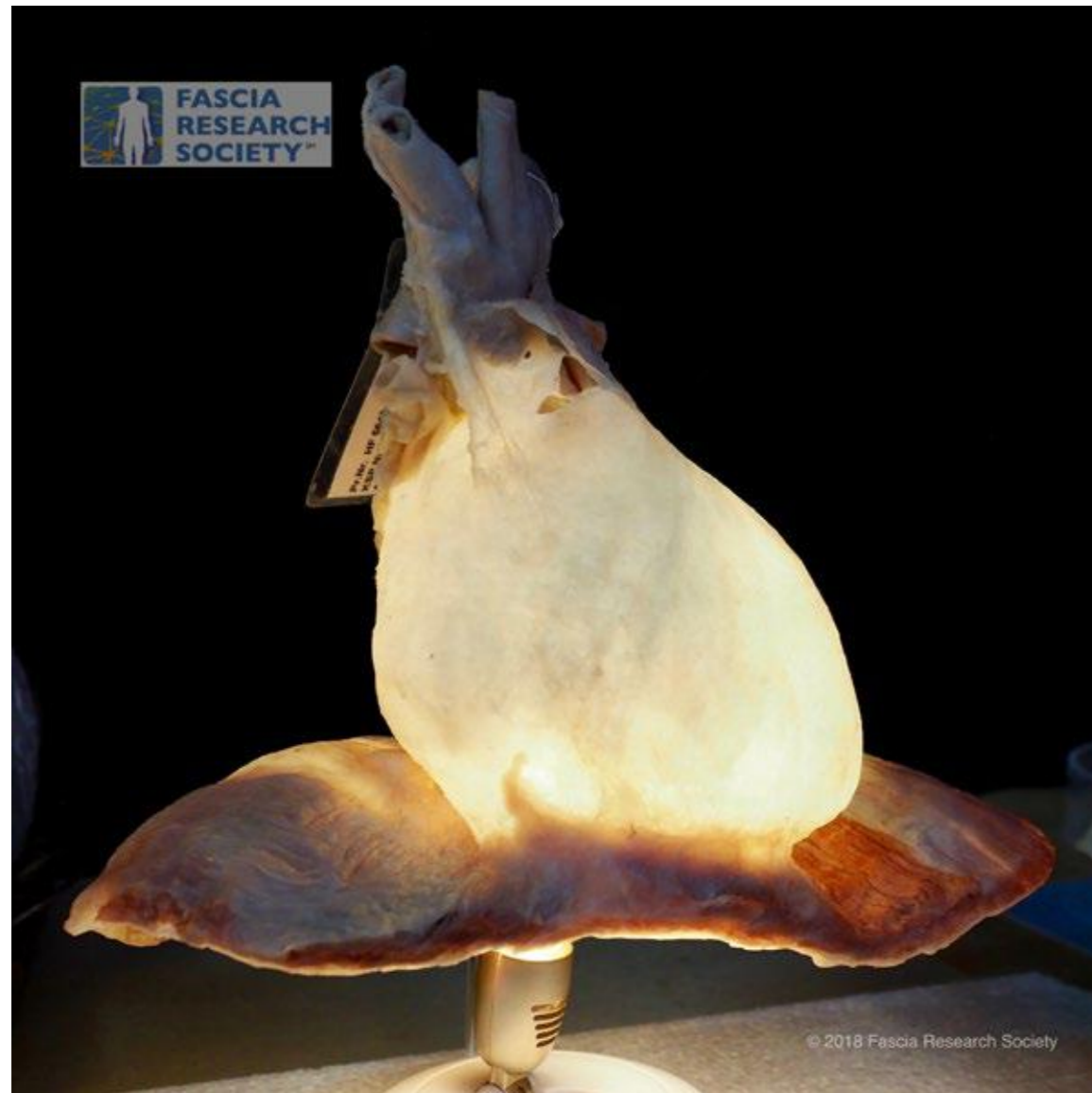


Above, pics by the author of the Plastinarium in Guben, Dr. Robert Schleip and with Dr. Carla Stecco

The author (right) with Rachelle Clauson (Committee member for the Fascial Net Plastination Project at Fascia Research Society) in front of the Plastinarium in Guben, Germany.

I was unable to attend the Fascial Net Plastination Project's initial five-day gathering in January due to prior commitments, including our own dissection lab teaching schedule. However, I was excited to watch from afar as the team began the dissections that would be the basis for the project.

Several excellent specimens were being created, including the iconic heart and diaphragm dissected by Jihan Adem and Tjasa Cerovsek Landes. It made me smile to think back on my own initial ghost hearts and my desire to connect the fascia of the pericardial sac to the larger deep front line. As noted in the November 2018 *Massage & Bodywork Magazine*, the initial uplift photos of this specimen called to mind Gil Hedley's quote, "Your heart is made to be light", which helped inspire the name for the FRC exhibit, *Fascia In a NEW LIGHT: The Exhibition*.



The process of plastination was interesting to me, particularly that the lab uses preserved tissue to dissect, which certainly makes it easier to work on the level of detail they attend to, but it also does change the texture of the fascia itself. The plastination process involves first a series of acetone baths to replace all the water in the tissue with acetone. Then the specimen soaks in a bath of liquid polymers where the acetone is replaced with plastic. The baths can take six months or more depending on the size of the specimen. At this stage the piece is meticulously positioned into its final shape and then is gas-cured to make the shape permanent. The team experimented with different methods of pre-treating the superficial fascia to manually remove the adipose in addition to the chemical removal from the acetone baths, but found that the additional manual process previously used so beautifully by Gil Hedley

and nicknamed “squidging” did not plastinate as cleanly as the superficial fascia that was left to the chemical removal alone.

In June, our team worked with both the positioning of these initial specimens as well as dissecting some new models to see what other possibilities might be attempted in the future. I enjoyed working on a cross-sectional abdominal model, which we filled with mesh wire and other materials to hold the shape of the layers. The models that were getting ready for the final gas-curing stages were wrapped around plastic bottles and other various packing materials, and then positioned in place with hundreds of tiny pins to help reform the shape correctly.



Photo by the author showing one of the team members working with a specimen after the six-month plastination process before being positioned and gas-cured.



Image of the abdominal layers from the January dissection



The author worked on this particular abdominal cross-section, done in the style of Jean-Baptiste Marc Bourguery (May 19, 1797 – June 1849) during the summer gathering.

The input of both teams was essential to the larger vision of the project. In between lectures and touring the Plastinarium museum, the initial work of the January dissections and the later June group proved to be an amazing collaboration of international volunteers working to highlight connection on many levels, both in fascial tissues as well as in the spirit of working together.



The author dissecting in June in the Guben lab

THE JANUARY GROUP



THE FASCIAL NET PLASTINATION PROJECT:

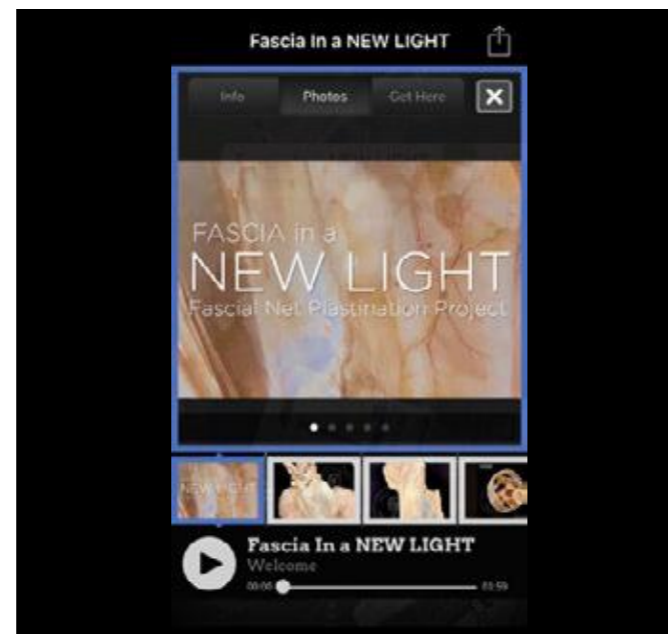
Directed by Dr. Robert Schleip and Prof. Carla Stecco; with assistance from John Sharkey MSc and in cooperation with Gubener Plastinate GmbH, Prof. Gunther von Hagens, Rurik von Hagens, Dr. Vladimir Chereminskiy, Alexander Crasemann, Daniela Seifert, Tilo Heinrich, and Rico Nitsche; with the academic supervision of Romed Hoermann, Tuulia Luomala, Irina Mischewski, and Mika Pihlman. Special thanks go to the Scientific Advisory Board of Dr. Ekkehard Geipel, Gil Hedley PhD, Prof. Werner Klingler, Dr. Hanno Steinke, and A/Prof. Ming Zhang; External Scientific Advisors Jaap van der Wal PhD, Prof. Rainer Breul, and Prof. Magdalena Mueller-Gerbl; the Remarkable Volunteer Team of Jihan Adem, Ali AlMarzouq, Einat Almog, Eryn K Apanovitch, Cíntia Báril, Gary Carter, Tjasa Cerovsek Landes, Anthony Chrisco, Rachelle L Clauson, Alison Coolican, Walter Dorigo, Libby Eason, Eric Franklin, Johannes Freiberg, Markus Friedlin, Andreas Haas, Beverly Johnson, May Kesler, Cosmina Krieger, Elizabeth Larkam, Tuulia Luomala, Tracey Mellor, Bernd Machel, Fauna Moore, Divo Mueller, Alexandra Müller, Sivan Navot, Lauri Nemetz, Jo Phee, Francesca Philip, Mika Pihlman, Bruce Schonfeld, Yap Poh Sim, Alison Slater, Gina Tacconi-Moore, Joel Talsma, Stefan Westerback, and Adrian Woolley.

THE EXHIBIT AND FASCIA RESEARCH CONGRESS

As the Fifth International Fascia Research Congress grew closer, several of us were asking about the big debut for November in Berlin. A committee spontaneously formed in order to bring all the moving parts together into one cohesive event. Under the guidance of Dr. Robert Schleip, Rachelle L. Clauson spearheaded the exhibit coordination and communications between the Fascia Research Society and the Plastinarium, which quickly grew to include Gary Carter who

designed the exhibition concept, layout and the banners that visually explained the process of each fascia plastinate; Tjasa Cerovsek Landes provided written content, editing, and huge administrative support throughout; the photography that brought the history of each piece to light was largely thanks to the stunning work of Stefan Westerback; and the Plastinarium provided museum-quality display cases, construction elements, and seven remarkable plastinates highlighting fascial elements from their own Plastinarium showroom making the exhibition a world-class event. My husband, Eric Feinstein, with his company Otocast, and I helped by donating and setting up an audio app which includes photos of the plastinates from the exhibition and recordings from team members around the world including myself, Jihan Adem, Gary Carter, Rachelle L. Clauson, Fauna Moore, Fran Philip, Stefan Westerback, and Adrian Woolley, with a German version translated and read by Andreas Haas. The app remains active and can be accessed in the following manner:

- 1) Download the app "Otocast" for either iPhone or Android devices
- 2) Search for "Berlin"
- 3) Click on 'Fascia In a NEW LIGHT' in German or in English



The Fascia In a NEW LIGHT: the Exhibition Committee: (left to right) Stefan Westerback, Tjasa Cerovsek Landes, Gary Carter, Lauri Nemetz, Rachelle Clauson, and Eric Feinstein of Otocast (not shown).



From left to right: Director of Anatomy and Plastination at the Plastinarium in Guben, Vladimir Chereminskiy, Gary Carter, Lauri Nemetz and Tom Myers (Stefan Westerback ©2018 FasciaResearchSociety)



The Fascial Net Plastination Project team members that gathered at the FRC, Berlin 2018. After completing the monumental work of creating the fascia plastinates, the team saw each piece through to final display by carefully arranging them in place for exhibition, then taking on the role of docents during the congress, and finally safely packing it up for transport back to Guben.

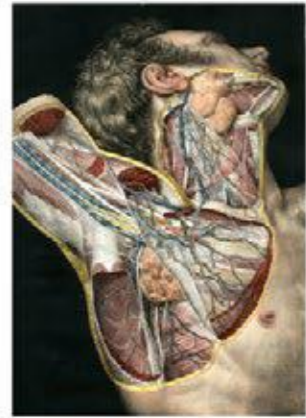
IMAGES FROM THE EXHIBIT



Echoing some of the work of the past year and project, my own poster presentation focused on the challenges and advances that come in fascia understanding with each new advance in dissection technique. Neil Theise has seen this in his own recent “discovery” of the interstitium due to changes in dissection of fresh tissue specimens that kept the spacing in tissue possible to see “new” things. He quoted Thoreau in his presentation in Berlin as saying, “When any real progress is made, we unlearn and learn anew what we thought we knew before.”

What is Lost and What is Gained? An Overview of the Fascia in Dissection Techniques and How it Has Changed our Perception of What It Is

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Jean Mare Bourgey. Atlas of Human Anatomy and Surgery 1831.

Introduction

The art of dissection inherently is the act of taking apart. Dissectors make choices of what to reveal and what to disrupt in any dissection. Merriam-Webster includes the concept as, "...removal along natural lines of cleavage of tissues..." [1]. Fascia has been defined as "a sheath of any number of other dissectible aggregations of connective tissue..." [2]. While it may be easy to dissect along facial divisions, the reality of the body (and fascia itself) is holism.

Dissection, while greatly increasing our sense of understanding the anatomy of the body, has misinformed as well. There are inherent advantages and disadvantages of dissection techniques in highlighting fascial anatomy from *écorché* to plastination. However, the history of anatomy is a vibrant, changing field and "mistakes" and advances both offer an opportunity for fascial knowledge.



Above: An engraving by an unknown artist after a drawing by J.C. van Wouw in 1609 of a public anatomical dissection. Image in public domain.

Below: Image (author's own) from the Plastinarium (Guben, Germany) of a varnish preserved leg, circa 1820.



Above image:
* denotes collagen bundles (A). Arrow points to a cell (B). Darker blue shows collagen bundles, and light blue reveals what may be elastin (C). Elastin fibers shown in black run along collagen bundles shown in pink (D).
Photograph by Neil Thiessen and David Carr-Locke. Used with permission [5].

Materials and Methods

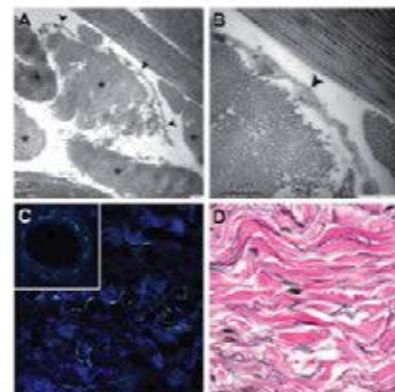
This is a subjective overview of current and historical dissection techniques as reviewed through artwork reproductions, photographs, and written materials. Highlighting the fascial system might be through the negative space left behind in an engraving (as in Vesalius' side view of the body, the fascial connections that Myers' would later label the Lateral Line [3]), or by photographic or preservation techniques.



Left: from Vesalius' *De Humani Corporis Fabrica*, 1543
Right: Lateral Line image, courtesy Anatomy Trains®

Results and Discussion

In the 1800s, varnish coating was used to preserve cadavers, but eliminated the finer qualities of fascia. Most formaldehyde-based techniques for embalming have the effect of distorting fascia when dissected. Among the best representations currently are computer models of dissection, decellularization techniques [4], and fresh tissue dissection. The recent classification of the interstitium as a new organ is due to understanding spatial relationship in living connective tissue [5] (fixed tissue causes connective tissue to "flatten," fresh tissue has space surrounding fluid-filled compartments). This may prove to have relevance in cancer research and the role connective tissues play. While many in the field have discussed this layer, e.g., Hedley (the perifascia), Gombertan, and Myers, et al., these new exchanges in vocabulary are adding to the historical lineage of our anatomical understanding of the fascial system via dissection.



Above image:
* denotes collagen bundles (A). Arrow points to a cell (B). Darker blue shows collagen bundles, and light blue reveals what may be elastin (C). Elastin fibers shown in black run along collagen bundles shown in pink (D).
Photograph by Neil Thiessen and David Carr-Locke. Used with permission [5].

Conclusions

What we can and cannot see through dissection of fascia informs our history of it. Paying attention to this helps our learning.



Decellularization of kidney (by author), leaving the remaining ECM. [4]



Image ©2018. Courtesy Fascia Research Society Facial Net Plastination Project.

Acknowledgments

Thanks to my friends and colleagues in this field, including those of the Fascial Net Plastination Project. A big thanks to Tom Myers and the entire Anatomy Trains team, to Todd Garcia and his Laboratories of Anatomical, Robert Schlep, G.J. Hedley, Carla Stecco, and many, many more who have inspired me in lab and beyond.

Disclosure: Laurice D. Nemetz, is part of the Anatomy Trains faculty, serves as an assistant in the Anatomy Trains dissections and is a member of the Fascial Net Plastination Project.

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Further Information

For further information:
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Tom Myers with Lauri Nemetz in front of the author's poster

WHAT'S NEXT?

The next aim of the project is to create a holistic model of the human form in three fascial models including: 1) the superficial fascia form, 2) the fascia profundus layer and 3) the deep core (dura mater, pericardium, diaphragm etc.) with the intention of showcasing these three fascial bodies as part of the 6th International Fascia Research Congress that will be held in Montreal, Canada in 2021. Hopefully, as new models are created the visuals and learning from the dissections themselves, as well as the final plastinates, will help to inform more research in our field and for the larger public. A large thank you goes to all the donors and their families as well as to the tireless work of the entire team.

At this time, Rachele Clauson serves as a member of the Fascial Net Plastination Project Committee via the Fascia Research Society. The team will be involved in the next stages of the process and will continue to collaborate with the Plastinarium in Guben, Germany.

In conclusion, this project is highlighting in preserved form what we are still in our infancy of understanding. In her autobiography, blind and deaf activist Helen Keller wrote that, "knowledge is love and light and wisdom." These next steps, through the project and the exhibitions, will hopefully serve as inspiration to illuminate the vast universe that exists inside us.

Laurice (Lauri) Nemetz is a certified Anatomy Trains® teacher, and Anatomy Trains Dissection lab assistant since 2014. Find her on the FB page Anatomy Trains Dissections and on her webpage www.wellnessbridge.com. She presents regularly at international conferences including Harvard Medical, American Association of Anatomists and more. She is also an adjunct associate professor at Pace University, Pleasantville NY in addition to maintaining her own practice in movement, therapy and anatomy.

WHY
FASCIA
STILL MATTERS

BY DAVID LESONDAK

BCSI, ATSI, FST, FFT, VMT

David Lesondak is an ATSI graduate and author of the international bestseller “Fascia: What it is and Why it Matters”. He is an Allied Health member in the department of Family and Community Medicine at the University of Pittsburgh Medical Center (UPMC). He practices at UPMC’s Center for Integrative Medicine. He is currently working on a 2nd book, Fascia, Function, and Medical Applications to be published by CRC Press in 2020.

INTRODUCTION

The growing volume of research on fascia – for example, PubMed shows 853 published papers under the search term “fascia” in 2017, as compared to 364 in 2000 - clearly shows an increasing trend in fascia research. As does the swell of interest in fascia from the exercise and fitness world, which to me seems close to the tipping point in bringing the “f word” to mass awareness. This is also happening in the medical and physical therapy world, albeit with slower momentum, but especially in the field of integrative medicine, mind/body medicine and the emerging field of regenerative orthopedics.

So am I the only one alarmed by what I perceive as a trend in our field to dismiss fascia as a reductivist tissue model, and tensegrity as a stale, time-worn concept? There seems to be some out there who think our working models are out-of-date. This is especially ironic to me as, from my point of view, the rest of the world is finally beginning to catch up to where we have been for a long time.

It is my fear that abandoning some of our best theoretical models at a time when they are finally achieving broader recognition and acceptance might further marginalize structural integration and its progeny to relative obscurity and potentially relegate Ida Rolf to a mere cult figure.

I think we are better served by more up-to-date understandings, and modifications, of the models that have served us well for so many years.

THE TISSUE MYTH

Like many things in life, ideas and trends in science often rise and fall in popularity. Or even acknowledgement. Sometimes they need to cycle round and round again before they gain academic momentum and acceptance.

Here are a few examples:

- In the United States it was once unthinkable to use anesthesia to perform surgery, even though it was being done successfully in other parts of the world (1).

- The enteric nervous system, or the “gut brain”, was discovered and forgotten three times before finally gaining general acceptance (2).

- Although she popularized it, Ida Rolf didn’t discover fascia. Nor was she the first to intuit its deeper significance.

About the time Ida was graduating from Columbia University, Australian anatomist Frederic Wood-Jones published the first of several volumes (3,4) in which he stressed both his dissatisfaction with the “error-prone” way of teaching traditional origin-and-insertion anatomy, and the importance of fascia in the musculoskeletal system. Frederic lamented that the embalming process altered fascia in a way that made it difficult to understand, opining that “for the purpose of practical medicine and surgery few tissues so well repay the study devoted to them in practical anatomy.” And 100 years earlier, in 1809, the French naturalist Jean-Baptiste Lamarck wrote: “... no one, as far as I know, has yet perceived that connective tissue is the general matrix of all organization, and that without this tissue no living body would be able to exist nor could have been formed.” (5). We all know that the primary elements of fascia are fluid (ground substance) and fiber (collagen). Type I collagen, the most abundant kind, has the same tensile strength as structural steel (6). It is exactly this quality that leads some to conclude that fascia cannot be changed through manual therapy. (I have also heard many people say fascia cannot stretch, to which I ask “What happens to your fascia when you’re pregnant?”)

We also know that the force required to produce about 1% compression and 1% shear on the fascia lata and the plantar fascia is beyond the normal physiologic range. It’s about 220 lbs of force. So we’re not going to lengthen the IT Band. We also know that a more permanent plastic deformation could occur in softer areas, like the superficial nasal fascia (7). Most of the fascia we treat is somewhere between those two extremes.

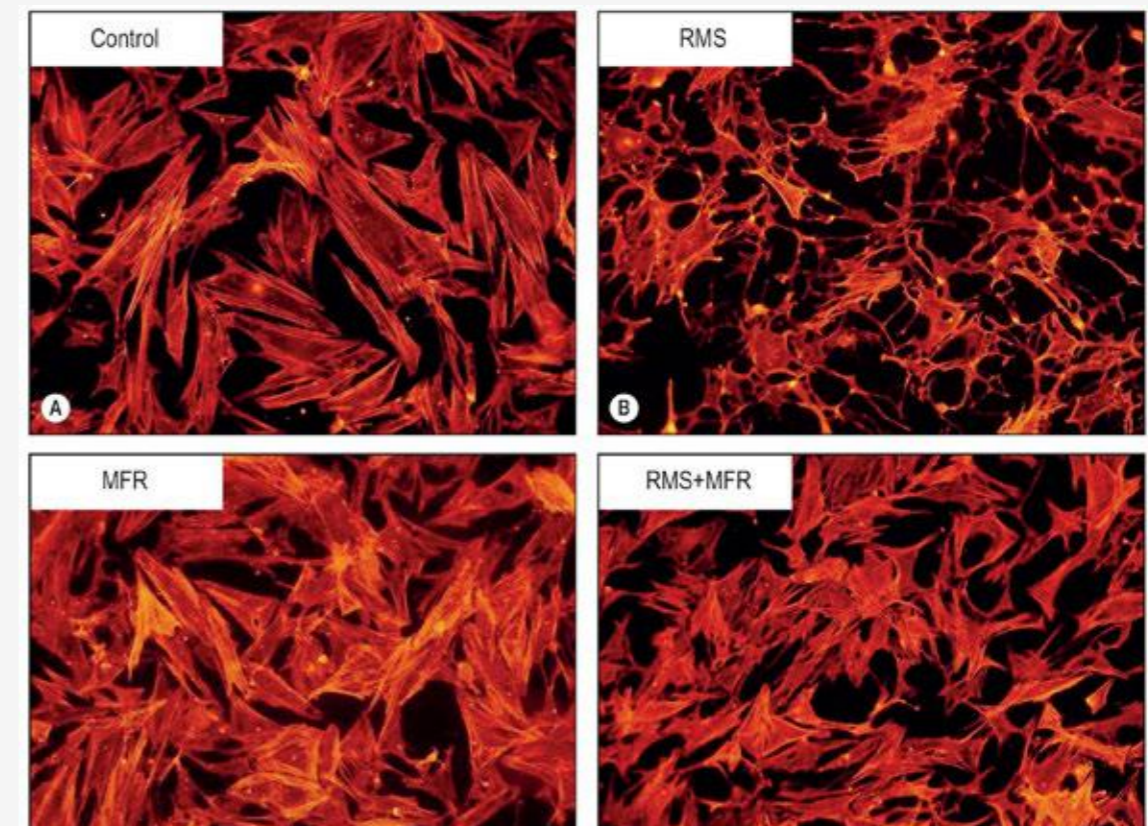
Structural steel is also highly ductile, or plastic, meaning it can be deformed when under stress. It is pliable, not brittle. Fascia also shares this same plastic quality referred to as creep (8). Creep is the ductile quality that allows your fascia to deform when under tension and then gradually resume its previous length once that tension is released. Constant tension from repetitive motion stress (RMS), however, can alter that process and damage the tissue.

An experiment subjecting a living cell culture to 8 hours of RMS, via suction and a flexible petri dish, yielded some very confirming results for our field of therapy (8). The RMS group of cells developed strain hardening, a change in the tensile nature of the cell. While some strengthening through work is a good thing (why else would you go to the gym?), too much is not. In this case the increased stiffness created a loss of structural integrity of the cell and a 30% increase in cell death, or apoptosis.

These same cells were then treated to the three essential elements of myofascial release (MFR): compression, stretch, and shear (angle). What was discovered is that 60 seconds of MFR undid some of the damage of 8 hours of strain hardening from RMS. Even the apoptosis rate went back to slightly below the normal rate of the non-stressed control group. There was a demonstrable regenerative effect on the cells treated with MFR.

To reiterate, 60 seconds of myofascial release significantly reduced the side effects from 8 hours of repetitive motion strain on living cells. It’s reasonable to extrapolate that this is one of the positive effects we are having on the people we treat. We are affecting the body right down to the individual cells.

Results of experiment attempting to model myofascial release at the cellular level. (A) The control group shows healthy fibroblast and actin architecture. (B) RMS is the repetitive motion strain group. (C) MFR is the healthy group that received myofascial release. (D) The image shows a culture that has induced RMS and then MFR.



(Reproduced with permission from Meltzer et al. 2010.)



TENSEGRITY – IT'S NOT JUST FOR BRIDGES ANYMORE!

Though this model came from worlds of art and architecture, tensegrity is defined as any structure that employs continuous tensional members and discontinuous compression members in such a way that each member operates with maximum efficiency and economy. I like to think about this as being when push and pull have a win-win relationship with each other.

The geometric key to tensegrity is the truss, or three-dimensional triangle (think of classic Egyptian pyramids). Trusses can be combined to form more complex polyhedrons. In terms of force transmission, the truss model is highly stress resistant, evenly distributing an applied force throughout the structure. The Saint Louis Arch is constructed using this model. So is, arguably, the arch of your foot, and every cell in your body (as we shall see later).

A recent study in Poland showed evidence that using a tensegrity-based model achieved better results (9). The area chosen for study was the shoulder. The standard treatment was very area specific, whereas the tensegrity group had a more global concept, treating 18 additional areas adjacent to the shoulder. The treatments consisted of Swedish massage only. While both groups reported a reduction in pain, everyone in the tensegrity group displayed a greater ROM than the non-tensegrity group.

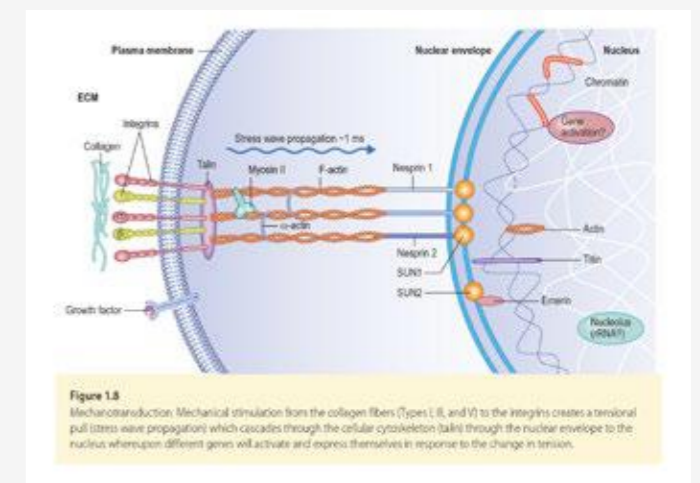
Some might choose to dismiss this study out of hand as being statistically insignificant, as there were only 15 participants in each group, but given the uniformity of the results, I hope this study can be replicated with a larger group.

We have excellent body maps for tensegrity, like the Anatomy Trains (10), that help us chart the likely paths of fascial force transmission and strain hardening in ways that should improve our outcomes. And that we are doing something that is definitely not Swedish massage, I believe we should be able to leverage the tensegrity model to achieve even more effective results.

In the Biotensegrity model, first proposed by orthopedic surgeon Stephen Levin (11,12) the bones are the discontinuous compression members and the surrounding connective tissue, the fascial system, provides the tensional framework. This structural arrangement is consistent throughout the body all the way down to the cellular level. The microfibers and monofilaments that comprise the cytoskeleton of the cell exhibit the same truss-based arrangement.

The cytoskeleton can be manipulated to change the cell's shape. Changing the shape of the cell changes its function. This is the process called mechanotransduction, and this too has a connection to the fascia.

On the outside of every cell are receptors called integrins. Unlike most cell receptors that respond to chemical stimuli, integrins respond to pressure and vibration. This mechanical message is transmitted to the integrins by individual collagen fibrils that are part of the fascial system. The stimulated integrin sends a signal to the nucleus that changes gene transcription within the cell. It has been shown that deep tissue massage, after exercise, will cause cells in the affected areas to produce anti-inflammatory cytokines and shut off the pro-inflammatory producing genes. It also creates new mitochondria (13).



This reaction takes 1 millisecond to occur, as opposed to 6-10 seconds in chemical reactions. Reproduced with permission from Handspring Publishing Ltd, taken from Fascia: What it is and Why it Matters by David Lesondak (2017).

But the biggest scientific takeaway from biotensegrity on the cellular level is that when cells are stretched (but not stretched too much) they exhibit healthier characteristics than non-stretched cells. In fact, the non-stretched cells exhibit a tendency to get rounder and go into apoptosis, cell death (14,15,16).

I think it's fair, in light of these discoveries, to realize that we are capable of generating beneficial effects at the cellular level, via manual stimulation of the fascial system.

The primary cell responsible for maintaining the collagen component of the fascial system, and thus aid in giving shape to your overall biotensegrity, is the fibroblast. And changing the fibroblast's collagen-producing behavior is another area we can influence.

THE FIBROBLAST THE SPIDER IN THE WEB

The principal cell type of fascia, long thought to be the cellular equivalent of wandering nomads, fibroblasts actually form an interconnected cellular network (17). Fibroblasts are responsible for synthesizing all the elements that make up the extracellular matrix, including collagen. They are also capable of secreting collagenase, a collagen-eating enzyme.

Fibroblasts sense the tension between the cells and their ECM environment via the fine, hair-like projections of their primary cilia. When the tension is low, not much happens. When the tension is high (think RMS and other repeated physical stresses, accidents, orthopedic surgery recoveries, and so on) the fibroblasts respond by creating more collagen to support the ongoing

tension (18). When that tension continues over a long enough period of time, months to years, the concomitant collagen build-up can create a palpable densification in the fascia in that area (19). Furthermore, ultrasound studies show a relationship between pain and fascial thickness, specifically in the neck and lumbar region (20, 21).

The corollary here is that when we restore movement to the "stuck" places, the areas of densification, we are likely stimulating the fibroblasts to produce collagenase. If we are doing our movement re-education correctly then every time a client takes a step, or uses their body in this new augmented way, they are recapitulating this same mechanical message to the fibroblast. The message of: "Less collagen, more elasticity here, please."

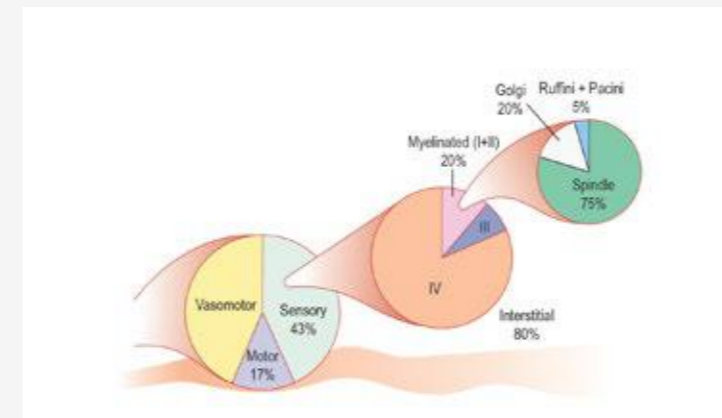
This aspect of our craft is not rocket science anymore. As structural integrators we are setting into motion a normal biological process of restoration that occurs at the cellular level (19).

Of course, the nervous system plays a part in all of this too. The current emerging thought arising from the field of pain science is that pain is predominantly an output of the brain (22). This overthrows the old Cartesian model that says when tissue is damaged, the damaged area sends a signal to the brain, via the nervous system, and that signal basically says "Stop!".

The new pain science model defines pain as an unpleasant feeling in our body that makes us want to stop and change our behavior. Pain is a highly complex, sophisticated mechanism that is designed to protect us. Furthermore, pain can modulate in such a way that the intensity of the perceived pain and the actual tissue damage are often mutually exclusive (23). And there are some pretty striking examples, like phantom limb pain, that clearly turn the pain-comes-from-the-tissue notion on its head...

My concern is that the pain science model creates yet another duality, albeit a new, exciting one, but it's still another duality where this time the brain has primacy over the tissue. Isn't it more likely that pain is a relationship between the brain and body, between the nervous system and the tissue? Whatever the answer, it seems likely that the fascial system is involved. Just as your muscles are encased in fascia, so too are your nerves. This is called meningeal fascia and has the same basic three-layer configuration as the fascia of your muscles (24).

In the typical motor nerve there are three times as many sensory neurons than motor neurons (25). This design configuration suggests that the body values sensory input over motor control. Specifically, only about 20% of these nerves are the typical muscle spindle, Golgi, Pacini, and Ruffini receptors. The other 80% belong to type III and IV sensory nerves, often referred to as both free nerve endings and interstitial muscle receptors. According to recent mathematical estimates your fascia contains over 100 million sensory nerves (26). When stimulated these interstitial receptors increase proprioceptive sensitivity (27).



In the typical muscle nerve there are three times as many sensory nerves. Of those, about 80% of the sensory information comes from the interstitial nerves.

Neurologist Oliver Sacks defined proprioception as "that continuous but unconscious sensory flow from the movable parts of our body (muscles, tendons, joints), by which their position and tone and motion are continually monitored and adjusted, but in a way which is hidden from us because it is automatic and unconscious." (28). Close your eyes and touch your nose with your index finger. Were you successful? That's proprioception at work. And a good example of why simple tests of coordination are often used by police to determine drunkenness. Alcohol consumption diminishes accurate proprioception. So does pain.

There have been a number of studies that show a correlation between proprioception and pain (29,30,31). While these studies were conducted both on rats (sober) and humans (also sober) and employed various means of testing, the results have a consistent finding – that when proprioception is diminished pain sensations increase. Likewise, when proprioception is increased pain will diminish. In that sense you could say that "use it or lose it" is a biological constant.

While I would argue when we "put it where it belongs and call for movement" we are leveraging the sensory nervous system to increase proprioception and thereby create change, the Fascia Research Department at Ulm University cautions about declaring that: "...the sensory innervation of fascial tissues can be modified e.g. via skillful mechanostimulation over a period of several months/years. We are not aware of any studies in that respect and suggest refraining from any claims in support of (as well as against) that possibility (32)".

So as responsible scientists, they are cautioning us to refrain from making any claims that cannot be proven. I'm good with that. Likewise, they are saying that these relationships should not be ruled out either. In other words, more study is needed.

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WHERE DO WE GO FROM HERE?

We all have confirmation bias. We all have a tendency to seek out information that confirms what we want to believe. On the other hand, just because I publish a peer-reviewed paper doesn't mean that I have discovered an objective truth either. What it does mean is that I have recorded an observation that someone else can now replicate and, hopefully, record a similar observation/get the same result. If this happens enough, then a new, emergent objective truth begins to come into the world.

Over the last ten years I have observed a growing interest and curiosity in fascia by the medical community, especially in the areas of mind/body and integrative medicine. Indeed, at the last major academic integrative medicine congress there was audible buzz and several fascia-relevant programs on the schedule. This is a big sea change from five years ago when "the fascia guy" was given thirty minutes at 8:30 AM on the last day of the conference (Full Disclosure: I was that guy). At the same time there is now the pain science/ nervous system school of thought that calls into question the effectiveness of manual therapies and stretching. Shouldn't it be possible to build a bridge between the two? To create an even better, more inclusive model?

Moshe Feldenkrais famously said that any time you have a choice between two things it's not a choice, it's a dilemma. It's a pretty human thing to want to find "The Answer" – one model that will fit all circumstances. But as every good clinician knows, a model, however good, is still a model. And actual mileage varies.

What is important is to deepen our understanding of the models we already have, while casting a curious eye to newer ones. To refine what gets consistent results and modify our working models appropriately when new knowledge comes to light. And to discard old ways of working when our results and science tell us otherwise.

It's traditional to end an SI session with a pelvic lift. It's the way it's always been done. We do so because that helps stimulate the parasympathetic response, which is what we want to induce at the end of session. Except it doesn't and we're not. Science now tells us that sacral autonomic outflow is sympathetic in nature (28). This does not make doing a pelvic lift inherently wrong, however it should cause us to re-think when we should use it. That's good science. That's being a good clinician.

Ida Rolf famously said: "When the body gets working appropriately, the force of gravity can flow through, then, spontaneously, the body heals itself." Perhaps it comes from dealing with MDs on a regular basis but that quote made me more than a little uncomfortable as an explanation for the effectiveness of structural integration. To me that's not a whole lot better than saying "and then something magical happens." And certainly neither phrase will serve you well in discussion with physicians. Or scientists.

Discovery in science often happens with the outliers, and fascia is surely that. Taken in totality over the last century or so the aggregation of the science of fascia, including tensegrity, points to a new, emergent truth about the body. A potential revolution in the way we understand what the body is and how it works.

We are finally beginning to see the acceptance of fascia as a major player in the world of manual therapy, recognition in the medical community via the interstitium (34), and in athletics and sports medicine (35). We SI practitioners have been at the cusp of this revolution for some time. I strongly encourage all of you to make the most of it.



Author with Chris & Ann Frederick from the Stretch to Win institute.

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INTERVIEW WITH
BRUCE SCHONFELD
JULIE HAMMOND

Julie: Hi Bruce thank you so much for agreeing to do this interview, I had the pleasure to meet you at the IASI conference in Washington and at the Fascia congress in Berlin. I am excited to have you join us in Australia to teach in November. I read your resume and have to say it is very impressive and I'm looking forward to finding out more about you.

Julie: I know you as the "The Secret Life of Fascia Man" but didn't know a lot about you until then. I did a bit of research, googled you and looked at your resume. You're an Advanced Rolfer, you do neural, visceral, cranio-sacral and movement, which is awesome. Can you tell me more about your background and what led you to making the movie?

Bruce: I did my basic training and got certified in '94. I petitioned to do my first Advanced Training early, so I did it '96/'97 and did another one in '98. The first one with Jan, the second one with Michael Salveson and then I did another one in the early 2000's. I had the both of them come out to Santa Monica. I think some of us are Systems Anatomy thinkers just by default, you know, we're just inclusionary thinkers so after a while, in a way, the question just poses itself, "what other anatomy lives in the neighbourhood?" You do musculo-skeletal work, maybe it doesn't work, so you start to factor in other stuff. So I've just been trying to learn about the different systems

of the body and how to manipulate. I've done a lot of studying with the Barral Institute in the visceral program there. In the beginning I did a lot of sculpting anatomy and clay in conjunction with the dissection. One was more like "construct it from the inside out," the other one was like a "deconstruct it from the outside in."

I've been putting together these classes incorporating critical thinking, systems anatomy, fascial interrelationships, etc. over the years. They went through an approval process with Jean-Pierre Barral DO, John Matthew Upledger, and Gail Wetzler PT. It's a complementary approach to Visceral Manipulation with its own assessment skills, tools, and techniques.

I studied VM rigorously and my working style and classes evolved over time to primarily a mobility based approach rooted in direct technique. So my Structural-Visceral classes are more familiar to SI therapists' quality of touch. The classes are organized within the same architectural framework as the first six sessions of 'The Recipe'. It's user-friendly in that way also, staking out 3-dimensional territory.

I've had a longstanding interest in studying Osteopathy and training with as many first generation teachers of Ida's as I can. I'm a life-long learner, I like education and the movie is part and parcel with that. The Secret Life of Fascia is an educational tool at its core.





Julie: I agree with you. I think it's so important to study with first generation teachers. I want to study with as many as possible. Is there anybody you still want to study with that you haven't yet?

Bruce: I mean there definitely is, there's a long list of people really. Are you speaking SI's specifically, or just in general?

Julie: In general absolutely any field at all.

Bruce: Oh well, there's so many people I'd love to study with, from all kinds of different disciplines too!

Julie: Who would be top of your bucket list?

Bruce: I mean, are we inside the box or outside the box?

Julie: You can be as outside the box as you want... Whose top of your list?

Bruce: Robert Sapolsky, I'd love to go sneak into lectures of his, or Cornell West or spend more time with Michael Shacklock, and/or try some of the other Neurodynamics teachers. I've not had much direct exposure to many of the esteemed Australians. I'd love to do that when I come out there. But yeah, Butler and Mosely...

Julie: On your resume, there's a lot of names, a lot of big names. Who was your biggest inspiration?

Bruce: I think my biggest influencers are Jan Sultan, Jean-Pierre Barral and Michael Salvesson and Gail Wetzler. From that list, I've spent more time with Gail than anybody. That said, I've spent more time with Emilie Conrad of Continuum than anybody, she should definitely be on my list.

Julie: So, tell me about "The Secret Life of Fascia".

Bruce: Yeah, it's a project that has evolved. Today it's a three-part mini-series (chuckles). That kind of is what it is.

The movie I'm making is a window into a whole sub-culture of allied medicine, the players, the issues, the many different parts of the puzzle, you know, it's 'much ado about fascia', embryologically, neurologically, histologically, functionally, and in motion. The tone, or point of view, that the movie has tried to take is one of moderation. There is actually a title at the very end of the movie that says "for the moderates..." So, I don't know if I've actually succeeded in that but I've tried to build a bridge and make the case for fascia's relevance and importance. What does fascia do? Why has it been historically marginalised? Why is it still marginalised? What are all the new discoveries about it which are substantial? And how do they factor in to everything from allopathic to complementary medicine? What pieces are clinically relevant to us as manual therapists? And what's just good general advice from how to maybe train fascia or hedge your bets in the direction of trying to train fascia, more directly?"

Julie: Thanks to you allowing me to show the movie in various cities, I've shown the film to very mixed audiences and I've had personal trainers love it, doctors love it, because it's on different levels, great visuals, and I think it would be great for clients just to sit and watch.

Bruce: Totally. It's killed so many birds with one stone. It's like a love letter to my clients saying "here's some info on how to help you help yourself." It's a serious resource for our clients who want to know more.

Julie: I agree, it's perfect for clients.

Bruce: People approach me and say "I'd like to show it to this group of doctors to try to build this bridge. I want to help people to build the bridge. I mean, our profession still lives largely in the shadows, so if I could just get it out there at all in a way that's meaningful and really incorporates science in a big way, which it does, it's kind of an exciting field, you know, it really is.

Julie: Will it ever have an end?

Bruce: Aah, I mean, I guess the answer to that is “no” (laughs).

Julie: It’s going to be an ongoing love affair...

Bruce: Part 1 is “What is fascia?”, and deals with why has it been historically marginalised in medical and anatomical texts and “why is it relevant and in the multitude of ways?” It portrays fascia as a ‘Cinderella Story’ and looks at embryology, connective tissue, fascia, interstitium, tensegrity, biotensegrity and the body’s relationship with nature.

Part 2 is called “Sports Medicine: Underlying Mechanisms” so it’s very science-dense offering educational windows into many interesting and cool ways fascia works and is important in sports and sports medicine. It’s essentially a science documentary. So it’s very sporty and hopefully will resonate with athletes.

And then Part 3 is about how to train fascia. The film, it just grew and expanded. Originally, it was going to be a 60-minute documentary, then it rolled into a 90-minute feature. But I restructured and cut it into three discrete acts from the very beginning. I moved stuff around. Part 3 was originally at the beginning of Robert’s science lecture. In terms of thematic continuity, I also moved a lot of different sections around and edited Robert considerably to make it more coherent. It’s been a process of adding new footage in and seeing how it works with the experts. It’s a lot of trial and error. I’m up into the thirties now, I’ve got thirty-two or thirty-four different experts (laughs). But there is an end to the project, the cap was at Berlin. Although I have additionally got Diane Lee and she’s going to be in Part 1 also because I felt she was important to have in and also she’s awesome.

Julie: Yeah, I agree a very clever lady.

Bruce: And I’m gonna re-insert Robert Sapolsky back into Part 2, with distribution as a three part series there’s no reason not to anymore, I mean, what is wrong with me? I have got to get Sapolsky back in there immediately. Unbelievable. Anyway, since Berlin I’m solely focusing on Part 1 right now and developing the website to go with it.

Julie: From the conference, who did you listen to that you thought “Wow, I need them in there?”

Bruce: Who do I need in there? Well, I mean, everybody is great on some level. I was thrilled with what I did do. I managed to add nine more people there, including Neil Theise who’s just fricken awesome. He’s new in Part 1 along with Jaap van der Wal. Jan Sultan is more prominent in Part 1 and Tom Myers is new to the Part 1 timeline which is terrific.

Julie: Jaap has to be in, he was my stand out at the Washington fascia conference.

Bruce: Jaap is in a chapter that’s called “the tao of embryology.”

Bruce: And then Peter Freidl, how did I forget to mention him until now?

Julie: Wow I also got to listen to him at the fascia conference and he was brilliant.

Bruce: I shot the interview with Peter on the way out the door, the audio was horrible, the lady working there was walking around with clogs on that floor, making all kinds of noise, and then she photo bombed the filming. But, I was able to edit an outstanding section of Peter, basically saying, I’m paraphrasing here, “you can’t competently study cancer tumours if you’re not also studying and incorporating the connective tissue as part of the ecosystem it all lives in.” Fascia’s detractors consider fascia to be completely irrelevant. If, after listening to Dr. Friedl discuss fascia, one still feels the same way about fascia being irrelevant all the time, then there is really nothing more to say on that subject.

Julie: Peter was a stand out along with Paul Hodges who just blew me away listening to him talk and to be so relaxed in front of so many people.

Bruce: Yeah, he’s just got it all, he’s amazing. It’s like those teachers you have in college, or even in high school, where they’ve got the intellectual part AND they’ve got the communication part – it’s just a pleasure to really hear about anything they want to talk about. Oh and I went to Daniel Leiberman, I mean, I love evolutionary biology, what’s not to love about that?

Julie: So, having made the movie, what was your biggest surprise? What shocked you, changed your beliefs, what did you go “wow”?

Bruce: I don’t know about that. The thing that maybe did that was really the impetus through the whole thing.

What shocked me on some level was just the irrational quality to the detractors of fascia. When I first was involved with Robert’s workshop in 2013 he was thoroughly trashed by the fascia-haters on a couple of different threads. There was something irrational about the whole thing that got my attention in a big way and I wanted to make the case for fascia’s value. In addition to all the other reasons I wanted to know more about fascia. I’m like a detective trying to figure it out, just like you and so many others, there are a lot of unanswered questions. It’s a jigsaw puzzle out here, I’m trying to put it together for all of us. Other times it feels like a boxing match.

Right now, I’m hot on the trail of bio tensegrity. I’m just like “that could be the answer to the whole goddam thing!”

Julie: (Laughs)

Bruce: I’m excited about bio tensegrity, I’m real excited. We could be done, that’s it. It’s bio tensegrity!

Julie: I’m excited about tensegrity, especially after the fascia conference with Peter, I want to know more, I need to read more of Peter’s work...

Bruce: He had a slide showing processes of a tumour metastasis, it was going through the connective tissue at one point, right, the whole thing was unbelievable. It was like sperm but it was like the inverse, it was the disease process looking for an opening and penetrating through fascia, it was kind of unbelievable. Let’s face it, we’re a bunch of anatomy and movement geeks because for us our minds were kind of blown. Good luck people.

Julie: My bucket list is mostly about studying. I feel I am going to be one of those eighty-year olds that is at Uni!

Julie: So we’ve touched on it – new information at the conference. What excited you?

Bruce: The global Interstitium with Neil Theise was, for me, right out of the playbook that I love. It’s multi-layered. One layer of Dr. Theise’s story about the discovery portrays the doctor as detective – I’ve always been a big fan of that.

Julie: Yes, I feel like Sherlock Holmes when I am treating.

Bruce: Exactly.

Julie: Yeah, it’s my inner nerd.

Bruce: Yeah, my favourite TED talk is on this subject by this great doctor up at Stanford. “A doctor’s touch,” by Abraham Verghese.

https://www.ted.com/talks/abraham_verghese_a_doctor_s_touch?language=en&utm_campaign=tedspread&utm_medium=referral&utm_source=tedcomshare

In addition to making anatomical history, Neil Thiese is excited about communities who’ve historically had a lot of trouble talking to each other, talking to each other now. And we’re learning from each other and we’re clarifying areas of overlap. Robert Schleip makes that exact same point, it’s about clinicians and scientists coming together.

Julie: So, when can people get their hands on your movie?

Bruce: Well I’m going to distribute it on Vimeo initially and then other platforms. So you can either rent it or buy it there. I’d say in the next month or two Part 1 will be out.

Julie: You were also involved in the Fascia Plastination project; can you tell me more about this?

Bruce: Yes, it was/is an absolutely amazing opportunity to bridge cutting edge anatomical preservation technology with fascia. It was an honor to be a part of this groundbreaking project and be a team member of the dissection team.

Julie: Ok, so, from an SI point of view, where would you like to see SI go next? How would you like it to progress forward?



Bruce: There's a few specific ways. I would like to see its professionalisation for the better.

Julie: Yep, I'm with you there.

Bruce: I would like to see us become more relevant, for example, I'd like to see us create some Best Practices. I don't know if everybody knows what has happened but in addition to the Rolf Institute changing its name they have also published "student learning objectives" or "student learning outcomes." On some level, those are quite excellent.

I'd like to see an orthopaedic database. Best practices, reframing our profession – not in a way where we throw the baby out with the bath water at all but, for example, as in Daniel Aikins presentation at the IASI conference "here's how PT presents itself, here's how OT presents itself". And then the way we present ourselves is just not in sync with that.

So that's part of the professionalisation process. We would just organise in a way that was user-friendly to other professionals. So if you're John Q, doctor or nurse or PT, and some of your patients are seeing an SI practitioner and you want to learn more about it, that you go and have a positive, rational experience at IRC, at Anatomy Trains at Rolf Institute, etc, where you know it's coherent and ready for professional consumption. I've been on this thing about student learning objectives for years because no credible organisation is credible without them.

Julie: I was at the teachers' meeting at the IASI conference and I heard the Rolf institute was going to publish student learning objectives but hadn't realised it had been released, that's great news.

Bruce: Yes, it's out there now. The core of it is a unifying professionalising deconstruction of learning objectives or outcomes that are unique to the profession and that also have variations from

school to school and there's these two tiers. So that would be where I'd like to see the profession go. I'd like to see us be nice to each other in a way that serves us all.

Julie: Yes, I feel collaboration is going to be the key to moving our profession forward.

Bruce: You know, the schools are better as a whole, for sure. The IASI meeting was awesome last year, right?

Julie: It was. I loved the open communication and sharing ideas between schools.

Bruce: That was the best meeting I ever went to.

Julie: Yeah, although IASI, I'd like to see more "International" to it. I feel they need to reach out to their International members more but I know they are working on it.

Bruce: Well the first word in it is "International" so let's just make that happen.

Julie: We have you coming across to Australia to teach visceral work, very exciting. Can you tell us what's different about your visceral work?

Bruce: Yeah, I think I've mentioned some of it before but it's more just grounded or rooted in mobility. It's not motility based – motility is alive and well and lives in part two of the combined technique approach. But part one is familiar to an SI practitioner's quality of work. It's, put the tissue on stretch...

Bruce: So direct technique is where it starts, well in terms of technique after the assessment. Also, as I said earlier too, it literally went through the Barral Institute's grooming process for new course work to make sure that it wasn't overlapped with Barral Institute's curriculum. You know, Gail Wetzler and I did that together on multiple occasions and prepared it for Jean-Pierre. It went through an actual formal process to make sure that it's a complementary skillset. There are a lot of unique moves that I just



developed from doing dissection and studying. Barral himself works direct technique all the time, spectrum of touch. Once upon a time Jan Sultan and I were taking a class with him together in Santa Fe, I think in 2000 or something, and Jean-Pierre came by and did some work with Jan and he left. Jan's response, right after he left was like "Jesus, that guy really gets in there." And a light bulb went off for me. Jan's not just saying that, I mean, he's not. So he is getting in there and that just means this gentleman has a spectrum of touch that, like us, is from subtle to strong. So, it's the work itself, it's kind of more complex and diverse in the sense of... it's more simple on some level. I trend towards simplicity instead of complexity. I like the common ground between SI and Osteopathy.

Julie: I like that and it goes well with an SI's touch which has to be complex but simple, less is more.....

Bruce: Different people like different ways. Barral himself teaches that way. He doesn't give you an extensive laundry list of things to memorise that's laborious, his style is more succinct, so is mine.

It's grounded in direct technique, putting the tissues on stretch. I do a sequence of demo-ing where I first demo it on the skeleton. The cheat sheet to my whole technique is using the bones. It's a lot of contacting bony landmarks as a departure point combined with a unique set of techniques. I'm basically teaching critical thinking skills where you're being two detectives at once. You're both analysing it from the outside in and

from the inside out. So the osteopathic default would be from the inside out, the area of greatest restriction as a cartoon, and SI practitioners' departure point, as a cartoon, would be to work peripherally initially, to set-up the area of greatest restriction first, basically creating support and adaptability around the primary area in question first before you go right for it. The Principles Approach is where SI crosses over and strategizes like Osteopathy, in my opinion.

It's a lot of multi-tasking. It regularly incorporates a 'double-direct technique'. Sometimes you just do one thing at a time, you keep it simple, but at a lot of other times you've got two distinct restrictions loaded up simultaneously and maybe even another long lever in the mix, maybe not. But you're just more dynamically putting the body under stress and tension and then being patient waiting for change.

Julie: I like that, double-direct technique. Nice.

Bruce: That's straight out of the Jan Sultan nomenclature, so that's what Jan was talking about back when I was studying in the late 1990's. So some of the language I've preserved from the SI lexicon.

Julie: I hadn't heard that term, makes sense.

Bruce: Double-direct – you can't beat that, right?

Julie: So, what do you still want to do as a manual

therapist and what are your 2019 goals?

Bruce: I want to do some really kind of cool dissections with my buddy Gil Hedley, and other fun people that do dissection work.

Julie: I am excited that Gil has an article in this magazine.

Bruce: Great. We've been friends since basic training. In the beginning, that's what I did. I took Gil's dissection class a half-dozen times and was with him in the early days. One day we're going to open up our experiential morphology theme park, haha.

Julie: So, once the movie's done, your final question of today, what's next for you?

Bruce: I'd like to do more video stuff.

Julie: You've got the bug? You haven't been scarred?

Bruce: No, I've enjoyed it. I've enjoyed a lot of the tedious aspects. Some of them not. I've loved the editing; it's been very technical too on a lot of levels. I've loved it.

It's education and compelling story-telling. I mean, Robert Schleip is a great story-teller with a great story and on some levels it's Robert's opus - The Cinderella Story of Fascia from A-Z. Make no mistake Schleip is the spine of the story,

and now it's embellished with all these amazing other experts.

So other stories that are just dying to be told that are just interesting stories. I was freed up on some level when one of my co-producers told me "Your film's never gonna get picked up because your protagonist is a sheet of connective tissue. People aren't going to emotionally bond with that. But the other side of that is that it's a personal project so you should just tell the story you really want to tell." And that's what I did, I listened and followed the story.

And so the project went from not being so good in the beginning (certainly not the way it looked and it hadn't been edited so it was really all over the place). Then it kinda got good. So for me to be over-identified with "I have to get it out in a certain time period to make other people happy," it doesn't really matter what they think. I just had to stay true to the improvisational nature of the film. It's missing information and I want to make the case as best I can cos there's no taking it back once it's out there.

Julie: So, thank you for your honesty and sharing your inner nerd with me.

Bruce: Thank you very much. This was great.

TEACHERS
IN FOCUS



I remember during my training, at one stage we were asked to express our best experience and our greatest fear. At that point of the journey, my answer was, “my best experience is being on this path, my greatest fear, to not be on this path”. That still resonates with me now as I sit here as a newly certified Anatomy Trains Teacher (Anatomy Trains Structure and Function and Anatomy Trains in Training) typing out my thoughts and feelings about my Anatomy Trains journey thus far.

My first love was and still is the martial arts where I teach for free and strive to be a perpetual student; a journey that has spanned 37 years or more so far. It was in my early years of training that I saw my martial arts instructor successfully treat fellow students when they presented at class with basic injuries. I was immediately fascinated and asked my Sensei what I could do to learn to do the same. He told me to start reading anatomy. I did what he said and it is something that is still a daily activity for me.

My background is in Sport Coaching and Training which evolved into movement therapy. It had become obvious to me that the place where the most improvement could be found was the client’s less resilient and less functional areas. I felt that if we could locate and improve those areas together, the client as a whole could move forward. To do this, I realised that I would need new tools to work with and that a form of bodywork would be necessary.

It was while on a couple of days off in circa 2012 that my wife, Maree, passed me Tom Myers’ book “Anatomy Trains” and said “have a read, tell me what you think?”. The first chapter showed me that I was in over my head but I was really struck by how it was such a different approach from what I had read previously. One thing led to another. Maree had been attending workshops organised by Bodywork Australia and had met our future mentors Julie Hammond and Julie Mower. Then one day Maree told me that Tom Myers himself was going to be teaching the Anatomy Trains prerequisite course and KMI One in Sydney. It was a no brainer; we gave up our holiday that year and went to training with Tom instead, and what an experience it was.

FOLLOWING THE ANATOMY TRAINS TRAIL *CHRIS CLAYTON*

IF THE WHY IS *BIG ENOUGH*,
THE HOW DOES *NOT MATTER*

I am only on this journey because my wife Maree found it. Maree went on to certify in Structural Integration first, as we could not both be away from our business at the same time. This gave me time to consolidate my thoughts and work out how much I needed this type of skillset if I was to do better work. I then went on to complete my certification in Structural Integration in the second group to go through the process in Australia. Apart from learning so much about bodywork and SI, I also learnt that when you are learning and doing what you are meant to do, things align and even what appears to be impossible becomes possible.

Reminds me of a quote from when I taught Sport Coaching and Fitness certification courses, "If the Why is big enough, the How does not matter" I feel blessed that Maree and I get to share our love for this work together and that we understand each other's inner anatomy nerd. Of note, our business has developed and matured immensely through this process. People ask me sometimes, did studying ATSI help your business? Our answer is always absolutely "Yes" let me count the ways. Being ATSI practitioners has placed us in a unique and wonderful place in our community. Most of all we are humbly aware that it has improved us and we are ever thankful to be a part of it.

I have been fortunate to meet and study with so many great mentors, such as Tom Myers himself, Lou Benson, Julie Hammond, Don Thompson, Julie Mower and AP Lindberg. I have been so fortunate to understudy AP Lindberg in Anatomy Trains in Training for the last couple of years and have since certified to teach it, but most of all I have gained a friend and brother. Another true gem that this journey has brought to Maree and I, is our heartfelt connection to our Aussie and international Anatomy Trains extended family.

In my mind any Diploma, qualification or certification is not an end point, it is simply a licence to continue learning. I have so much to learn and I find that really exciting.

Chris





To stand on the shoulders of giants.... Thank you, Tom Myers, for the privilege.

This morning I find myself proudly reflecting on new experiences while sipping coffee in Berlin and trying to absorb the broad spectrum of new knowledge thanks to the incredible presenters at the 2018 Fascia Research Congress. Experiences such as sharing a lunch table with Jean Claude Guimberteau and dancing on a boat cruise with Robert Schleip & Antonio Stecco. Standing in the presence of the great pioneers of fascial research and manual therapy has me feeling rather small. Much like just one of the 70,000,000,000 cells that differentiate to fulfill a microscopic yet important piece of origami in the incredible human body. I am truly honoured to have this opportunity to stand amongst the extraordinary faculty of Anatomy Trains and truly privileged for the opportunity to be part of the future of the global profession of structural integration.

If you've ever wondered how far you could reach, how high you could climb, or how amazing it would be to reach new heights in your profession then you and I are no different. I am an inquisitive, passionate and energetic lifelong student who is driven by an insatiable desire to understand the human body and the incredible potential that lives within each of us. When I was first introduced to this work, I knew that it was going to change me and alter my professional career. I felt that not only would it make me a more effective manual therapist, but that somehow, this work was going to allow me to step into my true authentic self; that each time I left home to study I would return changed with a sharper sense of who I was, deep in my core. I knew that somehow, this was going to become a life long journey of growth, education and selfless practice.

*TO STAND ON
THE SHOULDERS
OF GIANTS
CRISTY HARPER*

I WANTED HIS JOB: SHARING THE GIFT OF KNOWLEDGE WITH AMAZING AND BRIGHT PRACTITIONERS

WHO ARE LOOKING TO CHANGE THE WORLD WITH THEIR HANDS

I will explain more, but there was a time when I dreamed of being involved in this profession and now, here I am, writing about my educational journey for the quarterly publication E-Magazine produced by the great Julie Hammond, Lead Director of Anatomy Trains Australia & New Zealand. I will also proudly note that Julie Hammond is one of my most influential mentors on this incredible path to teacher certification and what a fantastic journey it has been to this point. While attending my first Anatomy Trains course in Victoria, British Columbia, Canada, I vividly remember thinking that perhaps someday I could aspire to actually teach Anatomy Trains. I'm not embellishing for the sake of this article, this was real and I was immediately hooked. Not only did I want to know everything that my instructor Mark was saying, I wanted to be able to see anatomy the way that he did. I wanted his job: sharing the gift of knowledge with amazing and bright practitioners who are looking to change the world with their hands. It seemed like such a lofty and unachievable goal... but the fact that you are reading this now gives proof that the dream has indeed become my reality!

I originally graduated in 2006 from the 3000-hour Massage Therapy program from the West Coast College of Massage Therapy (WCCMT) Victoria, BC Campus. I must note that I am unwaveringly and forever grateful for my first anatomy teacher, Viktor Benedek. Originally a surgeon from Europe who immigrated to Canada, Viktor hadn't yet mastered his competence in the English language to a level that would allow him to navigate an English board exam.

Knowing this, he accepted a position as an instructor at WCCMT. Let me tell you, his profound knowledge was not wasted on me. I was that student who had to know everything, every last minute detail. Viktor and I often found ourselves deep in conversation about the inner workings of organ systems, homeostasis, neurology, and often we would head down the rabbit hole of anatomy and physiology, all alone in a room full of wide-eyed students! Looking back, I think he knew I would find my calling as an educator. He even offered me a job as an anatomy teacher in his newly opened acupuncture school during our last conversation at my graduation. I was already on my journey towards Anatomy Trains, I just couldn't see it or believe it just yet.

With an astute fascination of the myofascial connections in the human body I started my own practice in 2007. Even then you would rarely find me using lotions or oils (in fact, I am quite certain that I still have the original gallon of holly oil that was gifted to me on my graduation). It is my firm belief that this work can only be fully understood by hooking into the fascia net with both a mindful intention and an intuitive grasp. If you had the opportunity to ask any of my original clients, they would confirm that I was immediately drawn to this way of manipulating the body to improve alignment, ease pain and restore mobility in such a way that still hasn't ceased to amaze me even 12 years later.

In 2010, a postcard with the Anatomy Trains Structural Integration (formerly Kinesis Myofascial Integration) flagship training landed in my mailbox and that was the true beginning of my path to becoming an Anatomy Trains educator.

By this point it was nearing 4 years into my clinical practice. As most of us manual therapists know, there comes a point when all our treatments begin to look the same. This is when you need to shake things up and look to grow in your knowledge; it was time to get back to learning. My depth of study in Massage Therapy has served me well. You can't capture the attention of Tom Myers without a strong foundation in anatomy. I trained directly under Tom when I travelled to Maine and completed my advanced certification in 2014. During the course evaluation, Tom & I sat together on an old picnic bench outside the beautiful Anatomy Trains classroom in Walpole. He informed me that he considered me to be a good candidate to teach in his school. To say that I was excited to hear this would be a grave understatement! Four years would pass until the teacher training was held and that's when I was launched into this amazing reality. This past year I have travelled around the world, assisting as many teachers as I could, gathering new knowledge, eagerly swallowing my fear, building confidence and honing my teaching style each time that I stood in front of my amazing students and peers. And now, today, here I am: certified and ready to share this wonderful series of courses with anyone brave enough to step out of their comfort zone to pursue a career in structural integration.

The path for me has been a remarkable adventure thus far. In the journey to becoming an Anatomy Trains instructor some of my most treasured rewards have been the opportunities to travel the world meeting fellow practitioners and teachers. The most important reward has been the overwhelming opportunity to exchange ideas and knowledge with some of the greatest and most inspiring teachers in our profession.

To each of those who have inspired me along the way, I thank you. Special thanks to Tom Myers, Julie Hammond, Meredith Stephens, and Sherri Iwaschuk for their direct mentorship, and to all of the incredible AT teachers as well as to the amazing administration team. I stand in unabashed awe and thank you for building a program that I am proud to be a part of. To my future students, I thank you in advance for your patience as I continue to define and develop myself as an educator. Please don't ever stop learning. The knowledge that you will gather in your continued educational pursuits will become the fuel for your success, and in turn that knowledge will provide the platform for you to leap to the next peak of the mountain. The sky is not the limit, it's limitless, and you are the only one standing in your way.

Finally, and most importantly, I thank my husband whose selflessness and unwavering support is the sole reason I've made it this far.

Cristy Harper, ATSI, AT Certified Instructor, BCSI, RMT, Neuro Ac.

Nov 16th, 2018...Sipping a delicious "long black" in fact!



MY STORY

MARCIN SIEDLACZEK

Hi! My name is Marcin Siedlaczek and I'm from Poland, central Europe, where my life started. I was an average teenager who had a mathematical and analytical brain and a great passion for sport. During my education I was not someone who had a great ability to remember every detail but I always liked to understand what and why. Sport passion and medical roots in my family lead me to the medical academy where in 2004 I started to study physiotherapy. That was a difficult decision because at that time studying mechanics and mechatronics was also on my mind. After almost 15 years I now know that this was a great decision. During my studies my favorite way to learn was to explain difficult things to other people. This helped me to build something like a map of connections that was really useful in physiology and in other analytical subjects. That was a great time as I was already sure that this was what I wanted to do.

My true story started in 2009 when I passed my physiotherapy studies. There was one question that I tried to answer from the beginning of my studies: how can tension and stiffness in one area have an impact in different places? My basic education couldn't answer this question and my lack of experience didn't allow me to make "experiments" on my clients. So I started my postgraduate education, hundreds of hours on different workshops, which showed me that the more I think I know, the more questions I have. I couldn't find answers for my spatial relations questions and this led me to an Anatomy Trains workshop in 2013. After attending, surprisingly I started to have more questions; 'Am I doing with my functional therapy what I think I am doing?' 'Does this movement really reduce disc protrusion like I was taught, or maybe releasing tension on the psoas muscle is what helped my client?'

My practice became more structural integration practice than standard physiotherapy practice.

In 2015 I finished 4 years specialization in physiotherapy, where I had to pass more additional courses, and I felt that my way of thinking about what I saw was not the same as before my first Anatomy Trains workshop. Studying 4-dimensional neuro-myo-fascial anatomy became my hobby.

Wojtek Cackowski, my first Anatomy Trains Structural Integration teacher, was interested in scientific work about structural integration and spatial medicine so, because I'd started working at the Collegium Medicum Nicolau Copernicus University in 2010, it was a great opportunity to start a collaboration. Our preliminary research was very interesting so I knew that these were great ideas and great knowledge that I wanted to share with other therapists. In 2015 I started to assist Wojtek regularly on Anatomy Trains Introduction workshops and FRSB's while occasionally assisting other "fascinating" teachers, which lead me to teachers training in Maine in 2017.

Great teachers - Lou Benson, Meredith Stephens and of course Tom Myers - all of them shared with us their teaching experience and skills and taught us how to become better teachers. I can also say that this trip to USA changed my mental life - meeting so many different people, ATSI graduates from different parts of the world with different ways of thinking, different life values and lifestyles who supported me during training a lot.

In 2018 my first independent teaching started. It was a little stressful at the beginning - teaching great physiotherapists with amazing experience is something different than teaching students. It's much more challenging but at the same time gives much more satisfaction. Also meeting people from different professions - medical doctors, yoga teachers, personal trainers - showed me how wide is the group of people who attend the Anatomy Trains Structural Integration program.

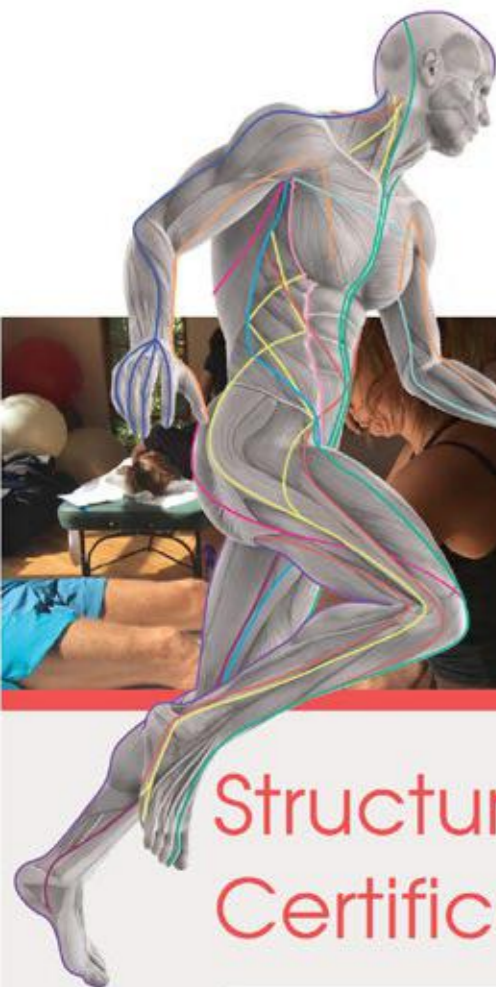
So we are in December now and I must say that this year has run very fast - teaching, learning, teaching, learning and... developing. In summer school we had the premiere of the Zoga Multidimensional Movement Intro workshop, where I had the chance to support from the scientific side. This, in my opinion, is another step forward in understanding how to support our clients and I think that this journey will never end. People who know me are always wondering how I can mix my physiotherapy work, being an academic teacher and an Anatomy Trains teacher with my family life. What can I say - I'm trying to spend every free moment with my wife and three great daughters who support me alot and... I still have a few hours for sleeping and being active to feel comfortable in my body :).



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"This idea of continual becoming – for both practitioner and client – is central to our training."

Tom Myers
Director Anatomy Trains



"ATSI is much more than bodywork, it's a thought process and framework that's constantly evolving the way I look for answers and listen with my hands."

Manny Rubalcava
2018 ATSI Graduate

ATSI Part 1

Maine:

September 10 – 27, 2019

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3 – Series: ATSI Part 2

Maine:

October 28 – November 8, 2019

12 – Series: ATSI Part 3

Maine:

March 30 – April 11, 2020

May 12 – 23, 2020

June 16 – 27, 2020

To apply to the ATSI program, visit: www.anatomytrains.com/atSI

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Newton, MA March 22-24
Arlington, VA March 22-24
Atlanta, GA April 5-7
Asheville, NC April 12-14

Peterborough, NH May 17-19
Rochester, NY June 7-9
Austin, TX August 23-25
Walpole, ME September 6-8
Atlanta, GA October 4-6

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Arches and Legs

Portland, OR March 15-17
Delevan, WI May 3-5
Newton, MA May 3-5
Arlington, VA May 17-19
Asheville, NC June 7-9

Fans of the Hip

Manchester, NH April 5-7
Portland, OR May 17-19
Newton, MA June 21-23
Arlington, VA July 19-21
Asheville, NC Sept. 14-16
Rochester, NY Sept. 14-16

Abdomen, Chest and Breath

Anchorage, AK February 1-3
Portland, OR July 12-14
Peterborough, NH August 2-4
Newton, MA Sept. 6-8

Abdomen, Chest and Breath (Cont.)

Arlington, VA September 13-15
Asheville, NC November 15-17
Austin, TX November 15-17

Tensegrity Spine

Atlanta, GA March 23-24
Anchorage, AK March 29-30
Portland, OR September 21-22
Newton, MA November 2-3
Arlington, VA November 16-17

Shoulders and Arms

Anchorage, AK March 31-April 1
Atlanta, GA June 22-23
Peterborough, NH October 5-6
Portland, OR November 2-3

Head, Neck and Jaw

Anchorage, AK May 19-20
Atlanta, GA November 23-24

We also offer specialty classes and retreats in fascial assessment, training, and treatment. To view our complete worldwide course schedule, visit: www.anatomytrains.com/courses



Fascial Dissection with Tom Myers



© Image by Anna Katharina Rowedder



Fascial Dissection – 2019

Teacher: Tom Myers
Dates: January 7th – 11th
 or
 January 14th – 18th
Location: Boulder, CO, USA
Price: \$500.00 deposit and \$700.00/month for 3 months
 (Advance Payment Discount Available)

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 - no chemical smells
 - see natural movement and colour
- to learn and practice dissection for yourself
 - work on your own project with others
- to work with Anatomy Trains author Tom Myers
 - under master dissector Todd Garcia

Come see for yourself what the tissues moving under the skin are truly like, not the images you see in books.

This annual event draws students from all types of manual therapy, movement therapy, and fitness in a deep exploration of the real human form.

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David Jacobs
 B.S. Exercise Science

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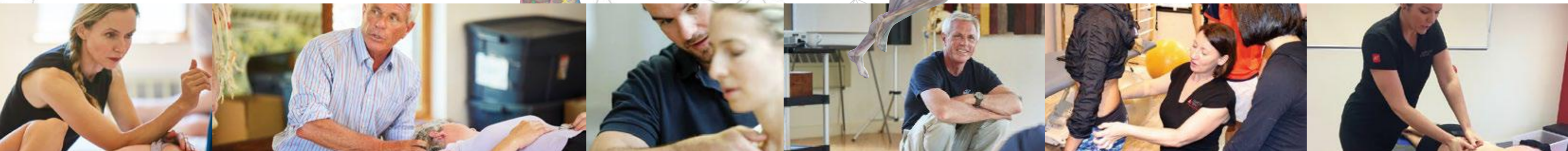
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SLINGS MYOFASCIAL TRAINING® 2019

Italy Anatomy Trains in Motion 8 – 10 Feb 2019 Slings in Motion® II 31 Aug – 2 Sept 2019 Slings in Motion® III 4 – 8 Sept 2019	Denmark Anatomy Trains in Motion 29 – 31 March 2019 Slings Essentials 4 – 5 December 2019 Slings in Motion® I 6 – 8 December 2019	United Kingdom Anatomy Trains in Motion 5 – 7 April 2019 Slings Diploma 26 May 2019 Slings Essentials 11 – 12 Sept 2019 Slings in Motion® I 13 – 15 Sept 2019
Thailand Anatomy Trains in Motion 25 – 27 Jan 2019	Philippines Slings Essentials 26 – 27 March 2019 Slings in Motion® I 29 – 31 March 2019	Spain Anatomy Trains in Motion 3 – 5 May 2019 Slings Essentials 7 – 8 May 2019 Slings in Motion® I 10 – 12 May 2019 Anatomy Trains in Motion 25 – 27 Oct 2019
Sweden Anatomy Trains in Motion 8 – 10 Feb 2019	Hawaii, USA Immersive Movement 21 – 26 Jan 2019	Russia Anatomy Trains in Motion 1 – 3 March 2019 Slings in Motion® II 17 – 19 May 2019 Anatomy Trains in Motion 6 – 8 Sept 2019 Slings in Motion® III 10 – 13 Oct 2019 Slings Essentials 27 – 28 Nov 2019 Slings in Motion® I 29 Nov – 1 Dec 2019
Israel Anatomy Trains in Motion 21 – 23 Feb 2019 Anatomy Trains in Motion 20 – 22 June 2019 Slings Essentials 18 – 19 Sept 2019 Slings in Motion® I 20 – 23 Sept 2019	USA Anatomy Trains in Motion 11 – 13 Jan 2019	Taiwan Anatomy Trains in Motion 2 – 4 May 2019
Norway Anatomy Trains in Motion 22 – 24 Feb 2019 Anatomy Trains in Motion 5 – 7 April 2019 Anatomy Trains in Motion 7 – 9 June 2019 Slings Essentials 7 – 8 Sept 2019 Slings in Motion® I 4 – 6 Oct 2019 Anatomy Trains in Motion 18 – 20 Oct 2019	Hongkong, China Slings in Motion® II 15 – 17 March 2019 Slings in Motion® III 19 – 23 March 2019 Anatomy Trains in Motion 27 – 29 April 2019 Anatomy Trains in Motion 22 – 24 June 2019 Slings Essentials 25 – 26 June 2019 Slings in Motion® I 2 – 4 August 2019 Anatomy Trains in Motion 21 – 23 Sept 2019 Anatomy Trains in Motion 29 Nov – 1 Dec 2019	South Africa Anatomy Trains in Motion 24 – 26 May 2019 Anatomy Trains in Motion 31 May – 2 June 2019
Australia Anatomy Trains in Motion 15 – 17 Feb 2019 Anatomy Trains in Motion 1 – 3 March 2019 Slings Essentials 5 – 6 March 2019 Slings in Motion® I 8 – 10 March 2019 Anatomy Trains in Motion 13 – 15 April 2019 Slings Essentials 1 – 2 June 2019 Slings in Motion® I 21 – 23 June 2019	Ireland Anatomy Trains in Motion 12 – 14 April 2019 Anatomy Trains in Motion 6 – 8 Sept 2019 Slings Essentials 25 – 26 Sept 2019 Slings in Motion® I 27 – 29 Sept 2019	Poland Anatomy Trains in Motion 31 May – 2 June 2019
		Singapore Anatomy Trains in Motion 7 – 9 Sept 2019

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Tom Myers Author of Anatomy Trains

European Courses – 2018/19

Date	Course	Location
2018 – Anatomy Trains Structure and Function		
23/24/25 Nov	ATS&F	Paris
23/24/25 Nov	ATS&F	Soborg
23/24/25 Nov	ATS&F	Split
30 Nov - 02 Dec	ATS&F	Antwerp
2019 – Anatomy Trains Structure and Function		
11/12/13 Jan	ATS&F	Oxford
25/26/27 Jan	ATS&F	Basel
08/09/10 Feb	ATS&F	Amsterdam
08/09/10 Feb	ATS&F	Ljubljana
18/19/20 Feb	ATS&F	Bonaire
22/23/24 Feb	ATS&F	Olten
08/09/10 Mar	ATS&F	Zagreb
12/13/14 Apr	ATS&F	Dortmund
22/23/24 Apr	ATS&F	Vienna
17/18/19 May	ATS&F	Belfast
17/18/19 May	ATS&F	Bonaire
14/15/16 Jun	ATS&F	London
14/15/16 Jun	ATS&F	Antwerp
05/06/07 Jul	ATS&F	Clare
30 Aug - 1 Sep	ATS&F	Burgdorf
06/07/08 Sep	ATS&F	Amsterdam
06/07/08 Sep	ATS&F	Geneva
20/21/22 Sep	ATS&F	Vienna
27/28/29 Sep	ATS&F	Dortmund
29 Nov - 01 Dec	ATS&F	Antwerp
2019 – Anatomy Trains Structural Integration II (formerly SBCM)		
07-11 Mar & 13-17 Mar	ATSI II	Dortmund
04-15 Aug	ATSI II	Espoo
2018 – Anatomy Trains BodyReading 101/102		
17/18 Nov	BodyReading 101/102	Zagreb
2019 – Anatomy Trains BodyReading 101/102		
12/13 Jan	BodyReading 101/102	Amsterdam
02/03 Feb	BodyReading 101/102	Dortmund

Date	Course	Location
2018 – Structural Essentials		
17/18 Nov	Tensegrity Spine	Dortmund
23/24/25 Nov	Fans of the Hip	Torun
01/02 Dec	Tensegrity Spine	Zagreb
07/08/09 Dec	Abdomen, Chest & Breath	Geneva
08/09 Dec	Shoulders & Arms	Dortmund
14/15/16 Dec	Abdomen, Chest & Breath	Espoo
2019 – Structural Essentials		
18/19/20 Jan	Abdomen, Chest & Breath	Oslo
19/20 Jan	Head, Neck & Jaw	Dortmund
26/27 Jan	Tensegrity Spine	Espoo
29 Jan - 03 Feb	Arches & Legs & Fans of the Hip	Budapest
01/02/03 Feb	Arches & Legs	Zagreb
01/02/03 Feb	Fans of the Hip	Clare
02/03 Feb	Tensegrity Spine	Geneva
13/14/15 Feb	Arches & Legs	London
22/23/24 Feb	Shoulders & Arms	Zagreb
02/03 Mar	Shoulders & Arms	Geneva
08/09/10 Mar	Arches & Legs	Basel
09/10 Mar	Tensegrity Spine	Oslo
22/23/24 Mar	Abdomen, Chest & Breath	Clare
29-31 Mar	Arches & Legs	Amsterdam
03/04/05 Apr	Arches & Legs	Moscow
06/07 Apr	Head, Neck & Jaw	Zagreb
06/07 Apr	Shoulders & Arms	Espoo
26/27/28 Apr	Arches & Legs	Ljubljana
26/27/28 Apr	Fans of the Hip	Zagreb
03/04/05 May	Fans of the Hip	Basel
04/05 May	Head, Neck & Jaw	Geneva
04/05 May	Tensegrity Spine	Clare
15 - 19 May	Abdomen, Chest & Breath & Tensegrity Spine	Budapest

Date	Course	Location
2019 – Structural Essentials – Continued		
25/26 May	Head, Neck & Jaw	Espoo
01/02 Jun	Shoulders & Arms	Oslo
08/09 Jun	Shoulders & Arms	Clare
21/22/23 Jun	Fans of the Hip	Amsterdam
05/06/07 Jul	Abdomen, Chest & Breath	Basel
09/10 Aug	Tensegrity Spine	Basel
31 Aug/01 Sep	Head, Neck & Jaw	Oslo
07/08 Sep	Head, Neck & Jaw	Clare
13/14/15 Sep	Abdomen, Chest & Breath	Amsterdam
25 - 29 Sep	Shoulders & Arms + Head, Neck & Jaw	Budapest
11/12/13 Oct	Arches & Legs	Clare
01/02 Nov	Shoulders & Arms	Basel
09/10 Nov	Tensegrity Spine	Amsterdam
22/23/24 Nov	Arches & Legs	Dortmund
13/14 Dec	Head, Neck & Jaw	Basel
2018 – Anatomy Trains in Motion/Slings		
23/24/25 Nov	ATIM	Prague
2019 – Anatomy Trains in Motion/Slings		
05/06/07 Apr	ATIM	London
12/13/14 Apr	ATIM	Dublin
31 May - 2 Jun	ATIM	Warsaw
06/07/08 Sep	ATIM	Dublin
11/12/13/14/15 Sep	Slings Essentials & Slings in Motion 1	London
2019 – Anatomy Trains in Training		
26/27 Jan	ATIT (I)	Lithuania
28/29/30/31 Mar	ATIT	Gent
16/17 Aug	ATIT (II)	Lithuania
5 - 8 Sep	ATIT	Amsterdam

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Anatomy Trains in Structure & Function

9th – 11th Feb 2019 – Auckland NZ
2nd – 4th March 2019 – Sydney NS
15th – 17th March 2019 – Fremantle WA
22nd – 24th March 2019 – Marcoola QLD
6th – 8th April 2019 – Hong Kong
10th – 12th August 2019 – Taiwan

Structural Essentials: Intensive Fremantle WA

1st – 16th June 2019 (6th & 12th Days Off)
All 6 Structural Essentials in 1 intensive format

Structural Essentials: Arches & Legs

15th – 17th Feb 2019 – Melbourne VIC
18th – 20th May 2019 – Sydney NSW

Structural Essentials: Fans of the Hip

5th – 7th April 2019 – Auckland NZ
12th – 14th April 2019 – Hong Kong
16th – 18th August 2019 – Taiwan

Structural Essentials: Abdomen, Chest & Breath

29th & 30th November 2019 – Taiwan

Structural Essentials: Head, Neck & Jaw

1st & 2nd December 2019 – Taiwan

Anatomy Trains in Training

1st – 4th March 2019 – Hong Kong
24th – 26th May 2019 – Auckland NZ

ATSI Part II: Structural Strategies – Fremantle WA

8th – 18th November 2019 (13th Day off)

ATSI Part III: Structural Integration

30th June – 17th July 2020 (6th & 12th July Days Off)
31st July – 16th August 2020 (5th & 11th August Days Off)

Summer School – Fremantle WA

22nd Feb 2019 – Introduction to Balancing the Diaphragms
23rd Feb 2019 – SI Grad Collaboration Day
24th Feb 2019 – Advanced SI Mentorship
25th – 27th Feb 2019 – Zoga
25th – 27th Feb 2019 – Intro to Neurovascular Release for SI
28th Feb – 2nd March 2019 – Core Integration Visceral Manipulation
1st – 3rd March 2019 – Anatomy Trains in Motion
3rd – 5th March 2019 – Intro to Neurovascular Release for SI
5th & 6th March 2019 – Slings Essential
8th – 10th March 2019 – Slings in Motion 1
Zoga
2nd – 4th March 2019 – Taiwan

Anatomy Trains in Motion

15th – 17th Feb 2019 – Melbourne VIC
1st – 3rd March 2019 – Fremantle WA

2nd – 4th March 2019 – Singapore
13th – 15th April 2019 – Sydney NSW

Slings Essentials

5th & 6th March 2019 – Fremantle WA
1st & 2nd June 2019 – Sydney NSW
12th & 13th June 2019 – Singapore

Slings in Motion I

8th – 10th March 2019 – Fremantle WA
14th – 16th June 2019 – Singapore
21st – 23rd June 2019 – Sydney

Slings in Motion II

9th – 11th August 2019 – Sydney NSW
25th – 28th October 2019 – Sydney NSW

Joe Muscolino COMT

24th – 25th May 2019 – Joint Mobilisation
26th – 27th May 2019 – Palpation Assessment

Bruce Schonfeld

7th Nov 2019 – Secret Life of Fascia – Fremantle
8th – 10th Nov 2019 – Structural-Visceral Integration: Gastrointestinal Interrelationships
14th Nov 2019 – Secret Life of Fascia - Sydney
15th – 17th Nov 2019 – Structural-Visceral Integration: Gastrointestinal Interrelationships

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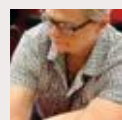
Introduction to Balancing the Diaphragms

22 February
Presented by Julie Hammond and Fiona Palmer



SI Grad Collaboration Day

23 February
For all SI Practitioners - Guest Speakers: Moving forward in SI



Advanced Structural Integration Mentorship

24 February
For SI Practitioners
Presented by Lou Benson



Zoga

25/26/27 February
For Manual & Movement Therapist's
Presented by Wojtek Cackowski



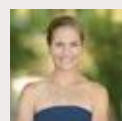
Introduction to Neurovascular Release for Structural Integration (NVR-SI)

25/26/27 February
For SI Practitioners. Small class numbers
Presented by Kirstin Schumaker



Core Integration Visceral Manipulation

28 February, 1/2 March
For experienced manual therapists. Small class numbers
Presented by Alyssa Dodson



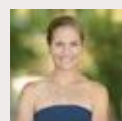
Anatomy Trains in Motion

1/2/3 March
For movement therapists and manual therapists interested in movement
Presented by Karin Gurtner



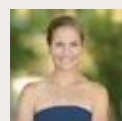
Introduction to Neurovascular Release for Structural Integration (NVR-SI)

3/4/5 March
For SI Practitioners. Small class numbers
Presented by Kirstin Schumaker



Slings Essentials

5 & 6 March
Prerequisite ATIM
Presented by Karin Gurtner



Slings in Motion 1

8/9/10 March
Prerequisite ATIM & SE
Presented by Karin Gurtner

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