And They're Off!

The Rolf Institute® Research Committee Is Up & Running

by Jason DeFilippis, Certified Rolfer

The Rolf Institute® Research Committee (RIRC) was formed in 2005 with the overriding goal of building a research infrastructure within the structural integration (SI) community so that SI will be recognized in the larger arena of complementary medicine. The Committee, directed by Advanced Rolfer Tom Findley, M.D., and composed of academically accomplished practitioners involved in clinical research (bios below), also has the following subsidiary functions:

- Facilitating the integration of SI into existing medical and life-science research communities;
- Giving scientific expression to our prodigious anecdotal evidence concerning the benefits of SI;
- Building on past research projects, such as those of John Cottingham and Valerie Hunt;
- Conducting and facilitating research into how SI works and the special properties of fascia;
- Fostering an understanding of SI both within the SI community and among the general public through continuing education at SI schools and public relations efforts; and
- Instituting basic and continuing education in research uses and methods – giving students, teachers and practitioners of SI the chance to learn how to read research papers, access scientific literature as a resource, collect data, and use such information to discuss SI with physicians and other clinicians.

The RIRC has some exciting news to report about developments in the SI community and its involvement in the larger field of complementary medicine. The biggest news is that in collaboration with the International Association of Structual Integrators (IASI), RIRC is organizing a fascial research conference to be held in Boston in 2007, immediately prior to the IASI biannual conference and the Rolf Institute (RI)'s annual conference. Named The First International Congress on Fascia Research: Basic Science and Implications for Traditional and Complementary Health Care, the conference will showcase current research concerning fascia and will include leading scientists in the field of fascial research. In addition to the "hard science," another segment of the conference will be devoted to clinical application, with speakers from fields such as Rolfing®, acupuncture, osteopathy, chiropractic and massage.

This conference will be an excellent opportunity for our community to learn from experts in the field, and to gain direction for SI/fascia research. The RIRC will be especially interested in learning from these experts about the details of building an infrastructure for research that will function in the complementary health-care field. Ultimately, the RI hopes to publish the conference findings in scientific journals. While the SI community is spearheading planning at this stage, the conference will ultimately help us gain recognition within the broader scientific community as a complementary modality that effectively works with fascia.

The other key news to report is that the Veterans Administration Hospital (VA) has just endorsed a new task force of physicians and nurse practitioners who know and appreciate complementary modalities. Their mission is to integrate those modalities into the mainstream medical culture at the hospital. With this development, Findley – and with him, the RIRC – are in the right place at the right time. Findley is clinically privileged to practice Rolfing® at the VA, where he has been successfully treating persons with spinal-cord injury. As an established research scientist, he can attract public and private grant money to SI research. (In his long career, he has already brought in over $14,600,000 in grant funding.) Right now, funding for SI research projects – at the VA and elsewhere – is finally becoming a reality.

WHAT'S HAPPENING RIGHT NOW?

The development of the RIRC provides a context for the continuation of the exciting research already being conducted within our community. Below are outlines of current projects by Robert Schleip, Tom Findley, and Stephen Evanko, Ph.D., all Rolfers who have published peer-reviewed research papers about fascia in general, and SI in particular. (Research relevant to SI is also being done by Eric Jacobson, Ph.D., who is a Rolfer and also an anthropologist on the faculty at Harvard.) These projects will continue and blossom with the next round of funding. There are also many other projects that will be considered by the RIRC for funding.

Robert Schleip now has evidence to prove what we already know in our hands: that rather than working like sculptors in a plastic medium, we are communicating with an actively self-regulating organism. He has been exploring the relationship between therapeutic stimulation of four different kinds of fascial mechanoreceptors and the regulation of fascial tonus. This has implications for the location, timing and direction of manual tissue manipulation.

Fascia's immediate response to manipulation cannot be explained by its mechanical properties alone. It is densely innervated by receptors that are responsive to mechanical stimulus connected to the central nervous system, especially the autonomic nervous system. Stimulation of these mechanoreceptors triggers changes in ground substance viscosity, gamma motor tonus, and autonomics. Schleip's recent studies evince the existence of intra-fascial cells with smooth muscle-like contractile properties. This suggests that fascia influences musculoskeletal dynamics in part because it can contract like smooth muscle, which is of special interest in relation to fibromyalgia and other conditions associated with increased or decreased myofascial stiffness. An attitudinal shift is suggested, from a mechanical body concept towards a dynamic systems model, in which the practitioner's intervention is seen as stimulation for self-regulatory processes within the client's organism.

Schleip is also working to substantiate the long-term effects of SI. To see his latest work on fascial plasticity, go to the new articles link at www.somatics.de, or check his papers out at www.fasciaresearch.com

Tom Findley has been using SI for patients with chronic fatigue, fibromyalgia, anxiety, stroke, and peripheral neuropathy. In these pilot cases, patients with balance problems showed measurable improvement in standing balance following SI. There is a convergence at the raphe nucleus of information processing about balance and bodily position from the vestibular, somatic, and visceral sensory pathways. These same pathways are also involved in avoidance conditioning, anxiety, and conditioned fear. Correction in the balance in patients with certain anxiety disorders may improve the condition of anxiety. This poses some interesting questions regarding the relationship between structure and function. Dr. Ida Rolf said that if someone is not able (through his body) to adjust to his environment, insecurity will be the state of his body and thus the state of his mind. Findley has had positive results with this from clinical trials. To view an abstract of his most recent paper involving Rolfing, go to: http://www.archives-pmr.org/article/PIIS0003999304009517/fulltext or google: Findley and Agbaje.

Two of Findley's colleagues at New Jersey Institute of Technology, Dr. Hans Chaudhry and Dr. Ji Zhiming are working on related projects to mathematically model the effects of SI on connective tissue. Chaudhry and his team are measuring the change in fascia when pressure and shear forces from SI "contact" are applied to it. A finite deformation theory is employed to develop a three-dimensional mathematical model for exploring the relationship between mechanical forces and deformation of human fascia in manual therapy. The palpable sensation of tissue release reported by manual therapists while working on dense fasciae does not appear to be due to biomechanical or viscoelastic properties of the fascia. There is probably some other reason for this sensation, which needs further investigation. Chaudhry is now also collaborating with Schleip. Zhiming is currently exploring ways to work with the National Institutes of Health (NIH) postural-modeling program brought to the SI community by Jeff Linn. His contributions will add greatly to ongoing efforts to measure structural change.

Stephen Evanko studies connective tissue development and remodeling and has researched the effects of mechanical loading on proteoglycan synthesis in tendons. He is currently focused on hyaluronan (a.k.a. hyaluronic acid), the body's lubricant, and its role in cell movement and proliferation, as well as tissue material properties. Evanko is also studying the effects of micromanipulation in vitro (in a lab) – i.e., Rolfing at the cellular level – on hyaluronan production by fibroblasts and smooth muscle cells in culture. He is also experimenting – for potential bioengineering applications – with how proteoglycans regulate elastin deposition in various tissues.

BIOGRAPHIES OF RIRC MEMBERS

Valerie Berg has been practicing SI since 1977. She is an Advanced Rolfer, Rolfing Movement Practitioner, and RI faculty member. From 1993 through 1997, she lived and worked in Guatemala and saw the value of Rolfing® for victims of the extreme conditions of war. She worked with UN personnel on war-related and stress-induced structural problems. This, in turn, motivated her to study trauma resolution with Dr. Peter Levine. Berg teaches workshops on movement and balance to dancers and to the Pilates and yoga communities in Albuquerque, New Mexico. Most important here, however, it was she who organized and re-activated the RIRC, for which she is now the RISI Board Liaison.

Stephen Evanko received his Ph.D. in biology from the University of New Mexico in 1993, where he studied the biological properties and biochemistry of connective tissues such as fascia, tendons, ligaments and cartilage. His main focus was how the tissues remodeled in response to different mechanical stresses. He received Rolfing in 1995, and was so impressed that in 1998 he made Rolfing his new career. He has found Rolfing to be a real-world application of what he had been studying in the laboratory. He continues his investigations on connective tissue part-time. Learn more about Evanko at www.rolfingseattle.com.

Thomas W. Findley, M.D., Ph.D. is Co-Director of the Center for Health Care Knowledge Management at the VA Medical Center, Director of Research at the Rolf Institute, and an Advanced Rolfer. Findley's approach to patients combines his expertise in many areas of medicine and health care. Trained in both acupuncture and homeopathy while still in medical school, he has a longstanding interest in the integration of traditional and alternative approaches. Findley served as a co-principal investigator of neurological and muscular conditions at an NIH-sponsored center for alternative medicine at Kessler Institute for Rehabilitation. His SI program at Kessler is still functioning. Findley's current focus is the treatment of veterans with medically unexplained conditions. He is currently researching the effects of Rolfing on anxiety, myofascial syndromes, chronic fatigue, and persons with spinal-cord injury. He and his colleagues are also mathematically modeling pressure and shear forces on fascia and exploring postural modeling. Learn more about Findley at www.rolfdoc.com

Nicholas French, Ph.D. is both an Advanced Rolfer and a Diplomate Jungian Analyst. After receiving his M.A. in Clinical Psychology from Goddard College in 1972, he trained as a psychotherapist at Associates for Human Resources in Concord, Massachusetts. Pursuing an interest in psychosomatics that lead him to Rolfing, he trained with Dr. Rolf in 1976. He served as a member of the Rolf Institute faculty from the early 1980s to the early 1990s, when he left to devote himself to his psychoanalytic training, which he completed at the C.G. Jung Institute in 1999. French is in private practice in both disciplines in Dallas, Texas.

Eric Jacobson, Ph.D. trained to be a Rolfer with Dr. Rolf and her son Richard Demmerle in 1972. He is also an anthropologist at Harvard Medical School, where he does clinical and anthropological research on classical Asian medical systems. His chapter "Getting Rolfed: Structural bodywork, biomechanics and embodiment" appears in *Healing by Hand: Bonesetting and Manual Medicine in Global Perspective* [Oths KS and Servando ZH (eds.) Walnut Creek, CA: Altamira Press. 2004]. He has also published on placebo phenomena, diagnostic reasoning in Chinese acupuncture, and Tibetan medical approaches to panic attack, depression and anxiety. Learn more about Jacobson at www.eric-jacobson.com.

Robert Schleip, M.A. is Director of Somatics Academy, Munich, Germany, Certified Advanced Rolfer, faculty member of the Rolf Institute, and faculty member of The European Rolfing Association. He is also a Feldenkrais practitioner. As an instructor,

research scientist and host of www.somatics.de, Schleip occupies a pivotal position where the international scientific, SI and bodywork communities intersect. His research is the cutting edge of what we know about fascia today. See www.fasciaresearch.com. From years of passionate curiosity and engagement, his unique viewpoint on SI is innovative, yet true to its principles. Learn more about Schleip at www.somatics.de

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For updates on RISC activities and information on research by others, go to www.rolf.org and www.fasciaresearch.com ❑