Wimbledon 2017 has just passed and we were treated to a spectacular fortnight of tennis. Both men’s and women’s draws provided entertaining matches, excellent competition and unfortunately a number of injuries for the participants. As tennis fans it is a delight to watch the elite players compete and as health care professionals we must continue to investigate methods to reduce injuries and maximize performance.

In this edition of the STMS Newsletter I invite you to get to know one of our members Fredrik Johansson. He has been a long term member and is engaged in tennis both on the court and in the science lab. He is passionate about tennis medicine and is excited to continue his post-doctoral research focused on elite youth tennis players this fall.

Our friends at the WTA have shared with us an interesting piece included in this newsletter titled “Tech in Tennis.” Many of you likely have wearable tech you use to track activity, sleep or other data to guide your health decisions. As the technology advances and becomes more universally available questions regarding safety, function, security and many others persist including “how much tech is too much tech”?

2017 has seen a variety of articles published on injury and injury prevention in tennis. Whether age, volume, surface of play, or technical changes, these recent studies are helping to elucidate the nature of risk and this data can assist clinicians in developing plans for risk reduction. I would encourage you to use this data to develop your own injury prevention strategies in the years ahead.

Enjoy the remaining months of summer and keep us up to date on how you are advancing the science of tennis medicine. We would love to highlight you in our STMS “In the News Section”!

Wishing you Aces,

STEPHAN ESSER MD, USPTA
STMS Newsletter Editor
SAVE THE DATE!

February 16-18, 2018

STMS and PTR (Professional Tennis Registry) World Conference present the

NORTH AMERICAN REGIONAL STMS CONFERENCE

Sonesta Resort • Hilton Head, South Carolina
STMS Member Spotlight

Fredrik R Johansson
Stockholm, Sweden

Occupation/Certification:
Combination of strength and conditioning coach and physiotherapist

How long have you been involved in tennis and in what ways?

What is your current role in tennis or "tennis medicine"?
I work on the field with young elite players doing my best to assist them with their daily fitness training from a high performance and prevention perspective. In addition I educate coaches in the area of strength and conditioning and injury prevention. As of September 2017 I will start up a post-doctoral project at Karolinska University with further research in the world of tennis-medicine.

What do you find most interesting about “tennis medicine”?
My passion has always been to work actively with the development of young players trying to become professional players, the journey is long and very challenging. However, I do believe when the medical and physical team integrate with the coaches and put the players best interest in the center of attention it is possible for players to succeed!

What is your favorite “tennis medicine” diagnosis to treat and why?
Since working with young players; prevention through “good daily habits” is hopefully the key for not having to deal with any diagnosis;-) However, no players are immune to injury unfortunately. In the case of injury I do enjoy trying to figure out why players have shoulder problems in relation to the serve. From my point of view it is a combination of local and global factors but very often also a technical/biomechanical issue, therefore I like to use video analysis in combination with clinical examination and rehabilitation trying to find a possible way to make the player healthy.

How do you think we can improve the field of “tennis medicine”?
I believe the key is to integrate with the coaches both on and off court, we must learn from each other to understand and figure out the best way for every player on an individual basis. I really enjoy the conferences where the different professions (medical team, fitness, coaches, mental, nutrition etc) are involved discussing the challenges that constantly arises with players.

Why did you join STMS and how are you involved?
I joined many years ago, I think the main reason is my passion for tennis. At the moment we are discussing how we can integrate the coaches to greater extent and also if it would be possible to do more activities/conferences in Europe and Scandinavia. We had over the years a couple of fantastic meetings in Sweden thanks to a lot of people with Prof. Per Renström as the “meeting general”, that would be nice to repeat again, hope to see everyone at that conference!
Injury prevention is predicated on knowing the types and rates of injury that players of various levels, age and sex experience. 2017 has seen a host of studies published which seek to further this awareness. If you have not already done so we encourage you to read them soon.


WE WANT TO HIGHLIGHT WHAT YOU DO TO ADVANCE THE FIELD OF TENNIS MEDICINE.
EMAIL US TODAY.
newsletter@tennismedicine.org
TECH IN TENNIS

Propelled by technology and access to wide-ranging information, athlete health, safety, and performance have reached new heights of interest and innovation. A new era of rapidly expanding sports intelligence and data analysis is here, with a focus on individualized and personalized programs.

There are two major drivers fueling the growth of personal sport technology - rapid advances in device and software development, along with an ever-increasing desire for more individualized and personalized programs.

The Internet of Things (IoT): the ability of objects to transmit and receive data via the internet. Wearable sensors and complementary intelligent devices can capture massive and continuous amounts of information in real-time – including the body’s response to physical activity and recovery, and periods of sleep and rest. These new technologies are light-weight, non-intrusive, affordable, and able to provide access to personal data previously only obtainable in the performance laboratory.

The use of Big Data Analytics in sports. From the Internet of Things comes trillions of pieces of information daily. The ability to put this information into useful context, analyze the data, and interpret the relevance to an individual or a larger group of athletes will provide tremendous insight into health and athletic performance.

“The power of wearables comes from connecting our senses to sensors.”
-Matt Miesnieks, CEO of Dekko

WEARABLE TECHNOLOGY IN PROFESSIONAL SPORT: ESSENTIAL OR EXCESSIVE?

Numerous professional athletes use wearable sports technologies, including smartwatches, fitness bands, and embedded sensors (in clothing, patches, or equipment). Wearables for health, fitness, and athletic performance, and corresponding tools for coaching, monitoring training, prompting behavior change, and tracking development, provide direct access to visual feedback and personal analytics. Many wearables have evolved to be all-in-one platforms that record various measurements.

Typical Measurements Include:

- Real-time heart and breathing rates
- Heart rate variability
- Blood oxygen
- Muscle and brain activity
- Skin and body temperatures
- Sweat content
- Global Positioning System (GPS) parameters to track speed, acceleration, and movement
- Biomechanics, stress levels, and sleep patterns can also be clarified and tracked.

Is all this collection of data essential to athlete health and performance or is it excessive?

Is the data valid and reliable?

- It is too early to truly validate the science used by many technology companies. Many products use protected methods to present information and make recommendations that are not clearly understood by the consumer.
- This makes it difficult to determine the accuracy of the devices. Players and coaches need to carefully examine the data and recommendations to find the technologies that seem to provide the most valid, reliable, and practical insights.
- So far, there is no single, independent source for information on validity and reliability testing available to inform players and coaches what works and what does not for sports technology.

Is their use effective?

- There is very little research to support the effectiveness of wearables in professional sports.
- It’s critical that athletes and coaches use a technology that truly enhances their performance or coaching and not use ones that make analysis more complicated, inaccurate or unreliable.
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What you get with STMS membership:

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Please inquire about discounted memberships for clubs or academies as well as large group memberships at membership@stms.nl!
Membership Renewal 2017

Hello STMS Members:

You can now renew your membership on the STMS website. The website has now been updated to allow easy renewal of your membership so you can continue to receive the member benefits and continue your membership with STMS.

Simply click on this link www.tennismedicine.org to renew your STMS membership using a credit card and paypal.

Please contact us if you have any questions or need help. Thank you for your continued support and membership in STMS.

Best Regards,
Todd Ellenbecker & Elaine Brady
Membership Committee Co-Chairs

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