

# Simon Fraser Orthopaedic Fund

Research within RCH/ERH

September 2016

First Edition

## WELCOME

... to our first official Newsletter of the Orthopaedic Research Department within the Royal Columbian and Eagle Ridge Hospitals. We hope to provide these 4 times a year to keep you up to date on what's new and exciting in the world of Orthopaedic Research. As you may or may not know, our Research office has been a very active part of the RCH/FHA Orthopaedic Department for

## BACKGROUND

How it all started ...

In 1990 the Orthopaedic surgeons decided to make a commitment to clinical research. It was very rare for this to happen in a "non university" hospital.

The idea was to collectively contribute funds to employ a research assistant to help facilitate and organize orthopaedic studies that were, at the time, being handled off the corner of their desks.

They also made a decision to focus on prospective clinical trials. These generate the highest level of evidence but are extremely challenging. For that reason they were very uncommon at the time.

The group started with a few studies on humeral and femoral shaft fractures and calcaneal fractures. We have continued to develop and grow to an office staff of 3, collaborating on over 50 studies, locally, nationally and internationally, with over 100 publications to date. At any one time, we can have up to 15+ studies on the go in the various stages of research; study design, start-up, follow-up, data analysis, presentation and manuscript preparation.

Our success can also be measured by various awards. ● The BOVILL award,

over the past 20 years. With this, our first attempt at providing knowledge translation with local hospital staff, we would like to introduce you to the members of the team as well as to give you some ideas of the projects we are working on and projects that have been completed.

presented annually for the most outstanding scientific paper at the Orthopaedic Trauma Association (the OTA being the worldwide authoritative source for the optimum treatment and prevention of traumatic musculoskeletal injuries) Annual Meeting, has been received a record six (6) times for studies we have participated in. ● The CHARLES NEER Award for outstanding clinical investigation at the American Shoulder and Elbow Society. ● A PRESIDENTIAL AWARD OF MERIT from the Canadian Orthopaedic Association for our work with the Canadian Orthopaedic Trauma Society (COTS). Along with the above, the American Society for Sports Medicine, ● O'DONAGHUE Award was received for our work on anterior cruciate ligament reconstructions. Orthopaedic Residents are all required to present a research project at the annual UBC Orthopaedic Research Day and our residents have been very successful in receiving the ● UBC RESIDENT RESEARCH award with projects mentored through RCH/ERH. And lastly, an award for ● BEST PAPER at the International Society for Fracture Repair.

## Research Staff • • •



**Karyn** has been with the team since October 2002. Her dedication and attention to detail has made her an extremely valuable asset to the success of our program.



**Raely** is our newest Research Assistant and member of the team, having started in August 2012. Over the past 4 years, she has continued with her main roles as data collector and patient recruiter.

Both Karyn and Raely share the Research office on 4-South and as you may have already guessed, are our vital Mother/Daughter team. They take extremely good care of our study participants and play a vital role in the coordination of follow-up visits and the collection and completion of all study data. Being adjacent to the orthopaedic ward, ensure they are readily available for any study related questions. Please feel free to stop by and say hi and introduce yourselves.

## PUBLICATIONS (attached)

New - 2016 ...

### Reaming Does Not Affect Functional Outcomes After Open and Closed Tibial Shaft Fractures: The Results of a Randomized Controlled Trial

*J Orthop Trauma* • Volume 30, Number 3, March 2016

Older - 2011 ...

### Liberal or Restrictive Transfusion in High-Risk Patients after Hip Surgery

*N Engl J Med* 2011;365:2453-62.

## STUDIES

New – July 2016 ...

### INSURT – Infrapatellar versus Suprapatellar Reamed Intramedullary Nailing for fractures of the Tibia.

This study, initiated and lead by local surgeons, Drs. Viskontas and Stone will investigate the newer suprapatellar approach for reamed IMN to see if this technique leads to a decrease in anterior knee pain (AKP).

Studies have shown that it is the young, active patient who is most affected by AKP. This has clinical significance as the majority of tibial fractures are sustained by men with an average age of 31. Not only does this knee pain interfere with leisure activities but it also affects the ability to work in manual labour positions. The economic impact of AKP affects not only the patient but also strains the health care system due to costs of additional procedures required to relieve or

attempt to relieve the knee pain, as well as hospitalization/office visits for other adverse events/complications. In addition to the personal and health care costs associated, there is also a society burden due to lost productivity. The diversity within our world's population necessitates consideration for various cultures and lifestyles, which may require higher knee flexion levels (i.e., cultural or religious requirements for sitting cross-legged and/or kneeling for long periods).

There has been a recent move to the use of a semi-extended positioning technique which eliminates the over-pull of the quadriceps muscle that is felt to lead to apex anterior angulation in proximal tibial fractures and prevents the procurvatum deformity.

Recent studies have demonstrated that the semi-extended suprapatellar surgical technique reduces the incidence and severity of AK symptoms and localized AK tenderness, and does not cause clinical patellofemoral joint damage. However, these



Mauri is the *Research Coordinator* and has been with the Simon Fraser Orthopaedic Fund almost since its inception back in 1995. Although no longer active in direct patient recruitment, she fulfills the administrative roles for study implementation and ethics approvals to finances and academic activities for the department. Having recently moved to the 6<sup>th</sup> floor in the Sherbrooke Building, she isn't seen too often on the ward but is always available for any questions, comments and/or concerns in regards to any research related activities.

studies are small and a larger study with long-term follow-up is needed to improve statistical power and to establish if any late sequelae exist.

We aim to expand on these studies with an international, multi-centre, prospective, randomized controlled trial comparing the two different surgical approaches.

202 study participants will be recruited internationally over a 2-year period. All patients 18 to 65 years of age with a tibial fracture amenable to reamed IMN will be screened and consented for study participation. The primary outcome is pain on kneeling as measured by a visual analog scale.

*For more information on Orthopaedic Research within the Royal Columbian and Eagle Ridge Hospital, please contact:*

Mauri Zomar, CCRP - Simon Fraser Orthopaedic Fund - #608 6th Floor, 260 Sherbrooke Street

604-520-4855

[mauri.zomar@fraserhealth.ca](mailto:mauri.zomar@fraserhealth.ca)