



# Rheumatology Research Report

For Patients & their Families  
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## Editor's Space

Spring is upon us once again! In this edition, you will read about two new studies on uveitis and arthritis. If you are part of the LEAP exercise intervention or PREVENT studies, study updates can be found on page 3. Finally, we share results from a recent study that looked at data from the Pediatric Vasculitis Initiative and introduce you to new staff in our team, Happy reading!

**Editor:** Angelyne Sarmiento  
**(Senior editor:** Dr. David Cabral)

*Division of Pediatric  
Rheumatology,  
BC Children's Hospital  
Tel: (604) 875-2437  
Fax: (604) 875-3141*

It is that time of the year again! Join Cassie & Friends and the Rheumatology team in the Scotiabank Vancouver Half Marathon and 5K. Last year, there were over 100 runners in our team of all ages! Funds raised by the team will go towards research, pediatric rheumatology programs, services, equipment, and educational events. We look forward to seeing you there!



**Join us for the Scotiabank Marathon/5K Run  
this summer! This year's run will take place  
on June 28<sup>th</sup>. Registration is now open.**

<http://tinyurl.com/ScotiabankRunRheum>

# NEW!

## The New Kids on the Block: Our Division's Newest Projects

### Tear Biomarkers in Uveitis

Drs. Kelly Brown and Kimberly Morishita were awarded funding from the Child and Family Research Institute (CFRI) to look for biomarkers in the tears of uveitis patients that might detect inflammation. Every year, up to 50 children in BC will develop uveitis, or inflammation of the uvea (part of your eye). This condition, if untreated or very severe, may lead to blindness in the affected eye. Currently, the only way to detect and monitor uveitis is to have frequent eye examinations with the eye doctor. There are no other reliable methods for early detection and monitoring of uveitis. This study will look for signs of disease in the tears of children that may give us a better idea of whether the eye inflammation is truly active or not. Children will be asked to provide a sample of their tears using "tear strips" that will absorb tears from their eyes. The researchers will then look for indicators of inflammation in the tear strips as well as in blood from children who are willing to provide a blood sample in addition to a tear sample. If you are a healthy child or adult, or a child with uveitis and/or JIA, you may be invited to participate in this study.



### Study of Pediatric Efficacy and Safety of Canakinumab: An open-label canakinumab (ACZ885) dose reduction or dose interval prolongation efficacy and safety study in patients with systemic Juvenile Idiopathic Arthritis (SJIA)



The purpose of this clinical trial is to find out whether it is effective to lower the dose of Canakinumab (ILARIS) in children with systemic JIA who are in remission or have inactive disease. At the moment, we do not know how long SJIA patients should receive Canakinumab. The study will also collect information on the long-term safety of the drug. Data from this study may be used to help guide doctors regarding canakinumab dose reduction in appropriate SJIA patients. Visit <https://clinicaltrials.gov/ct2/show/NCT02296424> for more information.

### Are you interested in joining our research studies?

Please visit our website to see a complete list of our research studies: <http://tinyurl.com/rheumresearch>

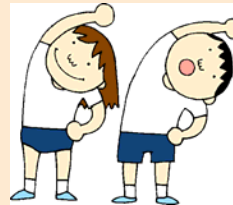
### Updates on Ongoing Studies

#### LEAP Exercise Intervention Study

*A good level of physical activity (PA) is important for all kids to develop strong bones and muscles.*



The **LEAP** exercise intervention study is the second arm to the ongoing LEAP study that is investigating the feasibility of a 6 month home-based exercise program and testing its effects on bone density and structure, muscle strength and quality of life in children with JIA. The study is now in full swing with a total of 24 participants enrolled and divided into 3 groups. All groups have begun the home-based exercise program, with group 1 nearing the half way mark! We have several participants already coming back for their 3 month muscle assessment this month. Kara, our exercise specialist, has been leading group



exercise sessions in cities across the lower mainland including Vancouver, Abbotsford, and Richmond, allowing participants to meet other children with JIA and exercise together. Participants are doing a variety of jumping, handgrip, and resistance band exercises that we hope will be used in creating guidelines for physical activity programs used for children with JIA.



<https://www.facebook.com/LEAPStudyJIA>

#### PREVENT-JIA Study Update

Recruitment for the *Prevention of disease flares by risk-adapted stratification of therapy withdrawal in juvenile idiopathic arthritis (JIA)* or the PREVENT study began in August 2013. Since that time, a total of 16 children from our clinic have joined the study. 11 out of the 16 participants have already completed the study. The purpose of this study is to explore whether a blood test that measures S100 proteins (a marker of inflammation) can predict the likelihood of the disease flaring once arthritis medications are stopped. The study is still ongoing, with 42 other children participating in the study from other hospitals in the USA and Germany.





## *Hot off the press! Results from studies in our Division*

### **Early Outcomes in Pediatric Antineutrophil Cytoplasmic Antibody (ANCA) Associated Vasculitis (AAV): A Pediatric Vasculitis Initiative (PedVas) Study by Dr. Kimberly Morishita & PedVas Investigators**

The Pediatric Vasculitis Initiative (or PedVas) is an international, multi-site study on primary chronic childhood vasculitis. It is funded by the Canadian Institutes of Health Research (CIHR) and the Canadian Organization for Rare Disorders (CORD). We now have data from 385 children with vasculitis from over 10 countries including the USA, Denmark, Thailand, India, Belgrade, and Italy.

Dr. Kimberly Morishita and other PedVas investigators recently looked at the outcome of 79 children with ANCA-associated vasculitis in the first 12 months of disease. They found that 53% of patients achieved remission within 4 to 6 months, and by 12 months 67% were in remission. The main treatments that were used to induce remission were Cyclophosphamide, Methotrexate and Rituximab. The remission rates in our study suggest that it may be more difficult for children with vasculitis to achieve remission compared to adults, despite aggressive therapy and continued use of corticosteroids for 12 months.

As part of the PedVas study, biological samples were also collected from children with vasculitis. Researchers have begun to analyze these samples to look for biomarkers and genetic markers that may help us better diagnose and treat children with vasculitis.

## **Announcements**

**Stephanie Duncombe**, one of our co-op students, will be leaving our team in the end of April. We wish you all the best!



**Angelyne Sarmiento**, our research manager, is expecting a baby boy and will be going on maternity leave in late June.

You will also see some new and familiar faces in clinic. We want to warmly welcome back **Dr. Ross Petty** who has come out of retirement to work in our clinic again. We are glad to have him back. There are also three new co-op students who have recently joined our ever growing research team - **Jessica Tang, Macy Zou,** and **Alice Guo**. Jessica and Alice are both UBC undergraduate Science students while Macy is from SFU. They will be working on various research projects with our team. Welcome!



*Jessica*



*Macy*



*Alice*