



# **Gynecologic Oncology University Health Network/ Sinai Health Systems**

**Annual Research  
Report  
2019**



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# Gynecologic Oncology Research at Princess Margaret



## VISION AND GOALS

- ❖ *To expand and promote **clinical, translational and educational research** by integration in the clinical care setting.*
- ❖ *To become Canada's **leader** in Gynecologic Oncology, **improving outcomes** for all women with gynecologic cancer through excellence in patient care, research and education.*

## Our integrated approach includes:

**A**

### ACTIVE SCREENING

Active screening in gynecologic surgical, radiation and medical oncology clinics to assess and identify patients eligible for our studies.

**B**

### BIOBANKING

Collecting and banking blood samples from ovarian cancer patients and coordinating tissue collection for research use through the UHN Biobank.

**C**

### COLLABORATION

Building relationships across disciplines for novel and innovative translational research.

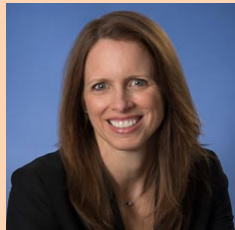
# Meet the Gynecologic Oncology Team

## Surgeon-Scientists



### **Dr. Marcus Bernardini**

Dr. Bernardini is the Division Head of Gynecologic Oncology at the University Health Network. His research interests include: understanding the role of precursor lesions in high grade serous ovarian cancer, as well as cytoreductive surgery for later stage disease. He co-leads the ovarian cytoreductive program as well as CANSTIC, a pan-Canadian study looking at treatment and outcomes of ovarian pre-cursor lesions.



### **Dr. Sarah Ferguson**

Dr. Ferguson is Director of Research for the Division of Gynecologic Oncology. Her research interests are improving surgical techniques and patient outcomes, survivorship and supportive care as well as hereditary cancer syndromes in Gynecology, in particular Lynch Syndrome. She leads the SENTOR trial.



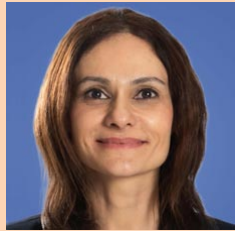
### **Dr. Stephane Laframboise**

Dr. Laframboise is co-director of the Gynecology Oncology Fellowship Program at Princess Margaret. Her research interests are in vulvar cancer and Quality improvement. She currently co-leads projects investigating vulvar cancer patient outcomes, immunocompromised patients and HPV screening and vaccination as well as a minimally invasive surgery/same day discharge quality improvement pathway.



### **Dr. Taymaa May**

Dr. Taymaa May is the Surgical Oncology Lead for Toronto Central South. Dr. May is the medical director of the UHN ovarian cancer serum biobank and a member of the international Ovarian Cancer Association Consortium. She leads a study integrating near infra-red assessment of anastomotic perfusion in patients with gynecologic malignancies following bowel resection and published the center's results of 100 consecutive anastomoses. Dr. May's translational research interests are in the field of serous ovarian malignancies.



### **Dr. Liat Hogen**

Dr. Hogen joined the division in 2017. Her research interests include predicting models for successful debulking in advanced ovarian cancer, and clinical aspects of rare subtypes of ovarian cancer. She is working on developing an integrated model for improved surgical outcome in ovarian cancer, as well as clinical and genomic studies in clear cell and endometrioid ovarian cancer.



### **Dr. Genevieve Bouchard-Fortier**

Dr. Bouchard-Fortier joined the division in 2017. Her research is focused on improving the quality of care of gynecologic oncology patients as well as developing quality metrics to measure outcomes. Currently she leads a perioperative care program for minimally invasive gynecologic oncology surgical patients (MIGOS) to shorten length of stay, reduce opioid use, improve patient experience and reduce costs.



### **Dr. Paulina Cybulska**

Dr. Cybulska joined the division in 2019. Her research interests are investigation of the tumour immune micro-environment in high grade serous ovarian cancer, geriatric oncology and granulosa cell tumors. She is currently collaborating with Dr. Laurie Ailles on a translational project examining the role of cancer-associated fibroblasts in mediation of chemo-resistance.

# Meet the Gynecologic Oncology Team

## Research Staff



### Dr. Alicia Tone

#### Scientific Associate

Alicia co-leads the Prevent Ovarian Cancer Program with Dr. Bernardini and co-directs the Gynecology Site Biobank with Dr. May. She works closely with the surgeons and basic researchers at UHN to develop grant proposals and study protocols for large translational research projects in the group.



### Emily Van de Laar

#### Clinical Research Coordinator

Emily coordinates the LS2 study (Universal Screening for Lynch Syndrome in Gynecologic Cancer Patients) and provides support for database development, logistics, budgets and finance to multiple other Gynecology Oncology projects.



### Gabrielle Ene

#### Clinical Research Coordinator

Gabby coordinates the research program at the Familial Ovarian Cancer Clinic at Women's College Hospital. She also handles blood collection for the Gynecology Site Biobank at Women's College Hospital and UHN. Gabby provides support in clinic and behind the scenes to numerous other department projects.



### Aysha Zia

#### Clinical Research Coordinator

Aysha coordinates multiple surgical and quality of life studies including the newly opened MIGOS study. She handles patient recruitment and follow-up in the bustling Gynecology Oncology clinic and supports data collection and management for many other projects in the group.

# HIGHLIGHTS 2019

1

Publications

**29 publications in 2019**  
10 as senior author

2

Grant Funding

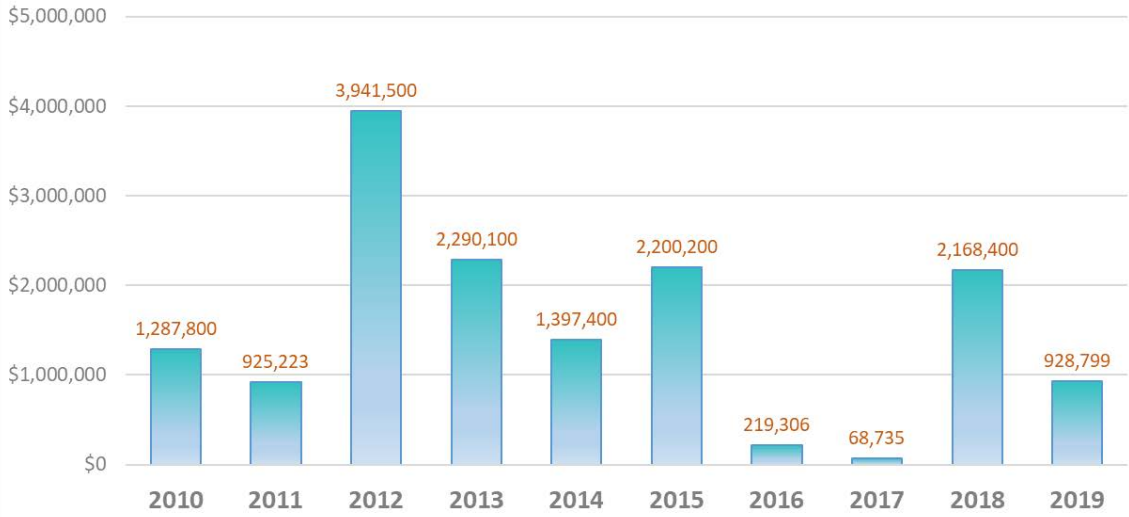
**\$2,210,684 in ongoing grant funding**  
\$928,799 awarded in 2019

3

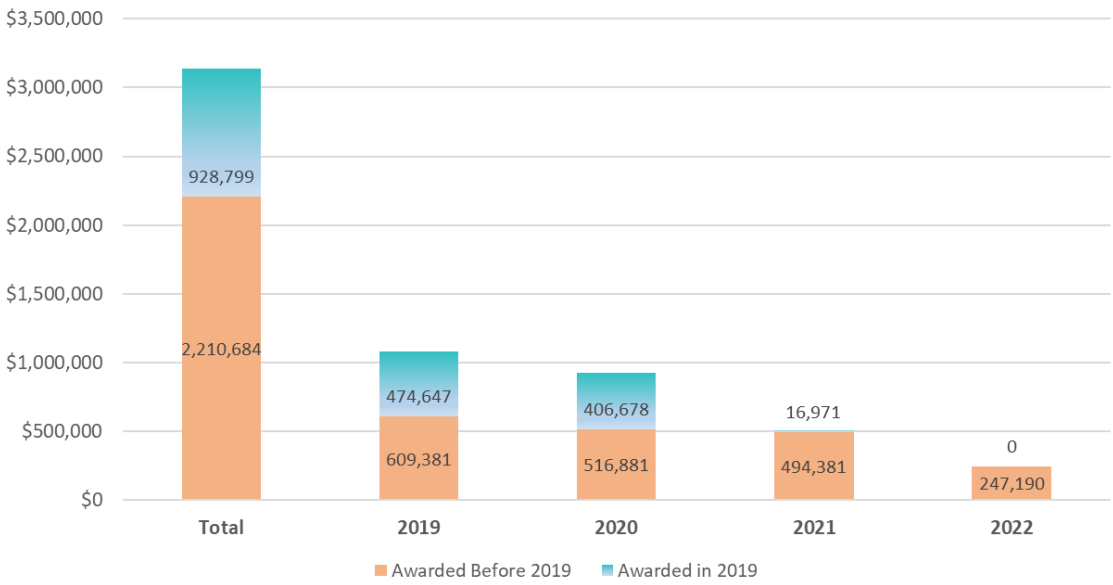
Studies

**9 actively recruiting studies**  
4 initiated in 2019

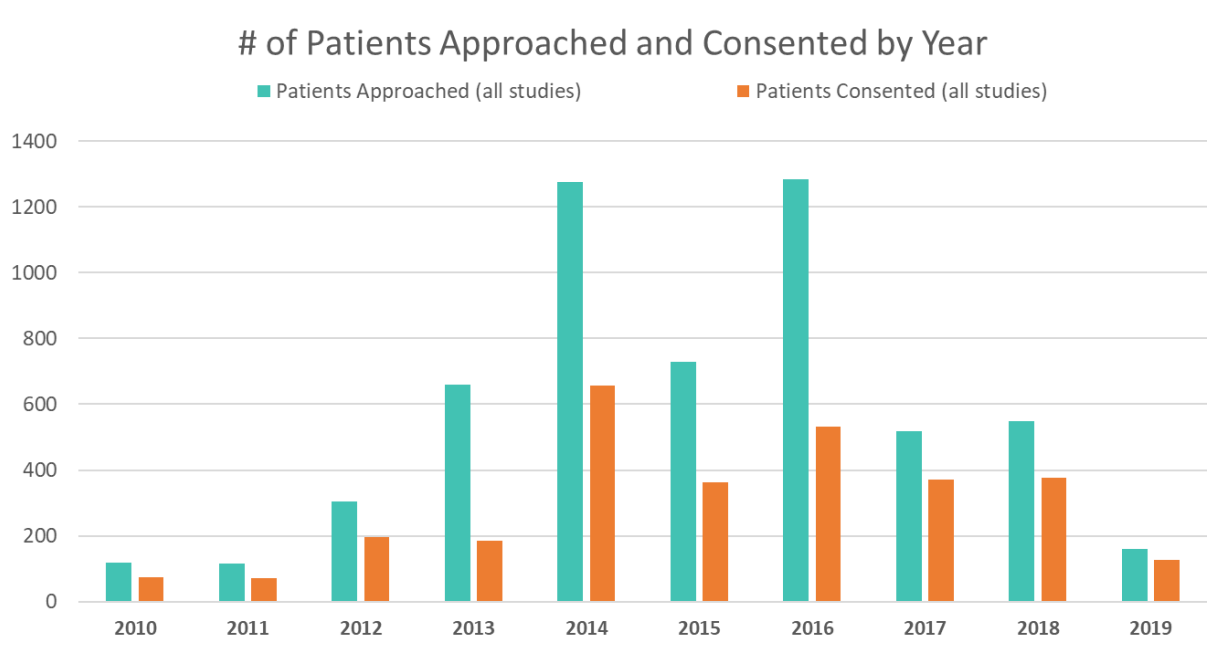
New Grant Funding Awarded by Year



Grant Funds Available 2019-2022



# Studies and Recruitment 2019



# Surgical Studies

## *Advancing Surgical Techniques and Treatment*

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### PET-HOC

#### 18F-DCFPyL PET/CT in High-grade Epithelial Ovarian Cancer: A Pilot Study

PI: Dr. Liat Hogen

- Recruitment began July 2019

PET-HOC is a prospective study to assess the performance of a PET/CT scan with the radioactive tracer 18F-DCFPyL to determine its accuracy in detecting small deposits of disease in patients with suspected high grade serous ovarian cancer. Sites of disease seen on PET/CT will be compared to standard CT scan, and to what is found at time of surgery as reported by the surgeon. Recruitment began in 2019 with a total of 8 eligible participants approached and 3 enrolled at Princess Margaret. Recruitment will continue in 2020 with a goal of 20 patients on study by the end of 2020.

### SENTOR

#### Accuracy of Sentinel Lymph Node Biopsy in Nodal Staging of High Risk Endometrial Cancer: A Prospective Trial

PI: Dr. Sarah Ferguson

- Recruitment from July 2015 to August 2019

The SENTOR study is a prospective study to assess the diagnostic accuracy and performance characteristics of sentinel lymph node (SLN) mapping with indocyanine green (ICG) fluorescent dye in patients with intermediate and high grade endometrial cancer. SENTOR reached full recruitment in summer 2019 with a total of 156 participants from 3 study sites: 101 from Princess Margaret Cancer Centre (University Health Network), 50 from Odette Cancer Centre (Sunnybrook Health Sciences Centre) and 5 from the Carlo Fidani Regional Cancer Centre (Trillium Health partners).



## SHAPE

### Simple Hysterectomy and Pelvic Node Dissection in Patients with Low-Risk Early-Stage Cervical Cancer

PI: Dr. Sarah Ferguson

- Recruitment from August 2012 to July 2019

SHAPE is an international study sponsored by the Canadian Clinical Trials Group in Kingston, Ontario. This randomized control trial compared clinical and patient reported outcomes between simple vs. radical hysterectomy in women with low-risk, early-stage cervical cancer to assess survival, recurrence, quality of life and sexual health. Patients were randomized upon consent to receive either simple or radical hysterectomy and pelvic lymph node dissection. SHAPE reached full recruitment in summer 2019 with a total of 700 eligible participants enrolled at 87 sites around the world. Princess Margaret enrolled 20 patients.

## Genetic Studies

### *Investigating Hereditary Factors in the Development of Cancer*

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#### **STICS and STONES**

#### **A Randomized Phase II Double-Blind Placebo-Controlled Trial of Acetylsalicylic Acid (ASA) in Prevention of Ovarian Cancer in Women with BRCA 1/2 Mutations**

PI: Dr. Marcus Bernardini

- Recruitment began June 2019

A randomized, control trial to determine whether there is a reduction in ovarian cancer precursor lesions identified in women with BRCA1/2 mutations who undergo risk reduction surgery after taking ASA (Aspirin) daily for a minimum of 6 months prior to surgery. Recruitment began in 2019 with 16 women approached for participation and 9 enrolled and randomized to ASA or placebo. Recruitment will continue in 2020 with a goal of 414 patients enrolled at all study sites by end of 2022.

#### **POCP**

#### **Prevent Ovarian Cancer Program: Systematic Identification of High-Risk Women for Ovarian Cancer Prevention**

PI: Dr. Marcus Bernardini

- Recruitment from May 2015 to present

A prospective study to identify genetic mutations that increase the risk of breast and ovarian cancer in women in the community who have a first-degree relative diagnosed with high grade serous ovarian cancer (recently or in the past). Full recruitment was achieved in 2019 with 819 women registered in the program. Of these, 487 were eligible for genetic testing and 446 have completed testing. Manuscripts are in preparation.

## LYNCH SURVEILLANCE

### **Gynecological Cancer Surveillance in Women with Lynch Syndrome: A Prospective Cohort Study**

PI: Dr. Sarah Ferguson

- Recruitment open February 2015 to present

A prospective study to provide a better understanding of the clinical benefits of gynecologic cancer screening and the psychosocial concerns in women with Lynch Syndrome. Recruitment began in 2015 and to date 75 women from across the province have been recruited for active surveillance for gynecologic cancer or risk-reducing surgery. Recruitment will continue in 2020 with a goal of 100 participants.

## LS2

### **Universal Screening for Lynch Syndrome in Women with Endometrial and Non-Serous Ovarian Cancer**

PI: Dr. Sarah Ferguson

- Recruitment from October 2015 to July 2018

The LS2 is a prospective study to screen the gynecologic cancer population for Lynch Syndrome using an enhanced screening protocol including universal Mismatch Repair Immunohistochemistry (MMR IHC), collection of a detailed family cancer history and a study navigator to refer eligible patients for genetic testing and follow up about attendance and results. The study aims to maximize detection of Lynch Syndrome in endometrial and non-serous ovarian cancer patients. Additionally, first-degree relatives of patients with Lynch Syndrome are being connected to genetic testing through the study. Full patient recruitment was achieved in 2018 with 883 participants enrolled total. 156 of those patients were referred genetic counselling and 112 underwent genetic testing. In 2019, 188 study patient tumours were sequenced on a custom panel.

# Quality of Life Studies

## *Focusing on Survivorship and Improving Outcomes*

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### **MIGOS**

#### **Comprehensive perioperative care program in Minimally Invasive Gynecologic Oncology Surgery: MIGOS project**

PIs: Dr. Genevieve Bouchard-Fortier and  
Dr. Stephane Laframboise

- Recruitment to begin in 2020

MIGOS is a prospective, quality improvement initiative to develop and test a perioperative care program for patients undergoing minimally invasive surgery. The aim is to improve the rate of same-day discharge for surgical patients as well as the overall patient experience (as reported through questionnaires administered before and after surgery). Patients will be followed for 30 days after discharge to assess their recovery. The study will recruit patients over a 2-year period beginning in 2020 with a goal of 250 patients accrued by mid-2022.

### **OPIOID STEWARDSHIP**

#### **Post-operative Opioid Stewardship in Gynecologic Oncology: Prescription Patterns of Physicians, and Use by Patients**

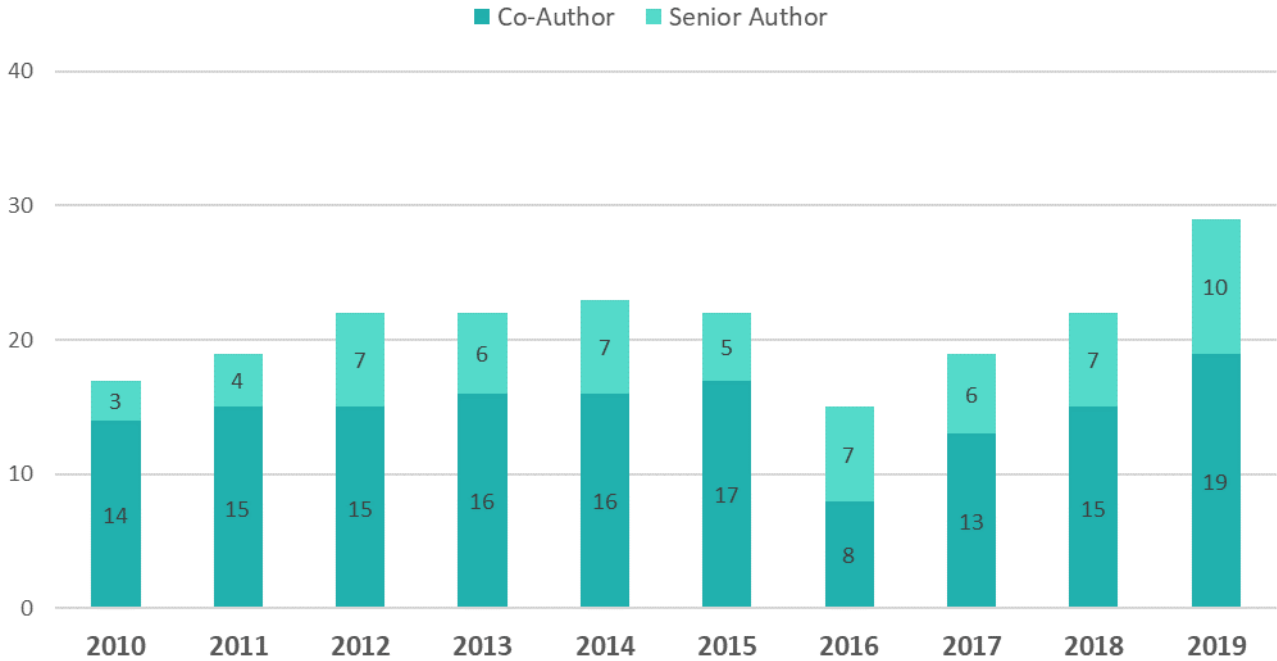
PI: Dr. Genevieve Bouchard-Fortier

- Recruitment to begin in 2020

The Opioid Stewardship program aims to quantify the use of postoperative opioids by surgical patients by surveying both patients and medical practitioners. The goal is to develop an opioid reduction strategy including an educational intervention for prescribers. The study opened in 2019 beginning with physician surveys to assess and characterize their opioid prescribing behaviour. Patient recruitment will begin in 2020 with a goal of 200 patients on study by the end of 2020.

# Publications, Presentations and Posters

## Publications by Year



## Senior Author Publications

McCuaig JM, Tone AA, Maganti M, Romagnuolo T, Ricker N, Shuldiner J, Rodin G, Stockley T, Kim RH, **Bernardini MQ**. Modified panel-based genetic counseling for ovarian cancer susceptibility: A randomized non-inferiority study. *Gynecol Oncol*. 2019 Jan; 153(1):108-115.

**May T**, Oza A. Conservative Management of Adnexal Masses. *Lancet Oncol*. 2019 Mar; 20(3): 326-327.

Kim RS, Lee YY, Brar H, Covens A, Metser U, **May T**. Utility of 18F-FDG-PET/CT Imaging in Patients with Recurrent Gynecological Malignancies Prior to Pelvic Exenteration. *Int J Gynecol Cancer*. 2019 Mar; 29:816-820.

Philp L, Chan H, Rouzbahman M, Overchuk M, Chen J, Zheng G, **Bernardini MQ**. Use of Porphysomes to Detect Primary Tumour, Lymph Node Metastases, Intra-Abdominal Metastases and as a Tool for Image-Guided Lymphadenectomy: Proof of Concept in Endometrial Cancer. *Theranostics*. 2019 Apr; 9(9): 2727-2738.

Sari A, Pollett A, Eiriksson L, Lumsden-Johanson B, Van de Laar E, Kazerouni H, Salehi A, Sur M, Lytwyn A, **Ferguson SE**. Interobserver Agreement for Mismatch Repair Protein Immunohistochemistry in Endometrial and Non-Serous, Non-Mucinous Ovarian Carcinomas. *Am J Surg Pathol*. 2019 May; 43(5): 591-600.

Cusimano MC, Simpson AN, Han A, Hayeems R, Bernardini MQ, Robertson D, Kives SL, Satkunarathnam A, Baxter NN, **Ferguson SE**. Barriers to Care for Women with Low-Grade Endometrial Cancer and Morbid Obesity: A Qualitative Study. *BMJ Open*. 2019 Jun; 9(6): e026872.

**Hogen L**, Vicus D, Ferguson SE, Gien LT, Nofech-Mozes S, Lennox GK, **Bernardini MQ**. Patterns of Recurrence and Impact on Survival in Patients with Clear Cell Ovarian Carcinoma. *Int J Gynecol Cancer*. 2019 Sep; 29(7): 1164-1169.

Cusimano MC, **Ferguson SE**. Pragmatic Studies of Minimally Invasive Radical Hysterectomy for Early-Stage Cervical Cancer Patients Must Be Valued. *Am J Obstet Gynecol*. 2019 Sep. Epub ahead of print.

Cusimano MC, Baxter NN, Gien LT, Moineddin R, Liu N, Dossa F, Willows K, **Ferguson SE**. Impact of Surgical Approach on Oncologic Outcomes in Women Undergoing Radical Hysterectomy for Cervical Cancer. *Am J Obstet Gynecol*. 2019 Dec;221(6): 619.e1-619.e24.

Wohlmuth C, Wohlmuth-Wieser I, May T, Vicus D, Gien LT, **Laframboise S**. Malignant Melanoma of the Vulva and Vagina: A US Population-Based Study of 1863 Patients. *Am J Clin Dermatol*. 2019 Dec; Epub ahead of print.

## Presentations International

- 2019 Mar 7    Assessing Choices Among Women Undergoing Cancer Panel Genetic Testing: A Mixed-Methods Study. The Society of Behavioural Medicine 40th Annual Meeting and Scientific Sessions. Washington, District of Columbia, United States. Presenter(s): Shuldiner J, Knight J, Bombard Y, Metcalfe K, Kotsopoulos J, Ferguson SE, Tone A, McCuaig J, **Bernardini MQ**, Rodin G.
- 2019 Mar 8    Psychological Impact of Cancer Panel Testing. The Society of Behavioral Medicine 40<sup>th</sup> Annual Meeting and Scientific Sessions. Washington, District of Columbia, United States. Presenter(s): Shuldiner J, Knight J, Bombard Y, Metcalfe K, Kotsopoulos J, Ferguson SE, Tone A, McCuaig J, **Bernardini M**, Rodin G.
- 2019 Mar 14    A Multi-Centre Prospective Study Comparing Costs Between Robotics, Laparoscopy, and Laparotomy in Management of Endometrial Cancer. The Society of Gynecologic Oncology 50th Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Kosa SD, Ferguson SE, Panzarella T, Lau S, Gien LT, Samouelian V, Giede C, Steed H, Renkosinski B, **Bernardini MQ**.
- 2019 Mar 14    The Prevent Ovarian Cancer Program (POCP): Identification of Ovarian Cancer-Associated Mutations in Self-Referring Women from Low-Risk Families. The Society of Gynecologic Oncology 50th Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Tone A, McCuaig J, Kim R, Shaw P, Stockley T, **Bernardini MQ**.
- 2019 Mar 16    Impact of Surgical Approach on Survival Outcomes in Women Undergoing Radical Hysterectomy for Cervical Cancer: A Population-based Cohort Study. The Society of Gynecologic Oncology 50<sup>th</sup> Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Cusimano MC, Baxter NN, Gien LT, Moineddin R, Liu N, Dossa F, Raziee HR, Willows K, **Ferguson SE**.
- 2019 Nov 9    Laparoscopic and Robotic Hysterectomy in Endometrial Cancer Patients with Obesity: A Systematic Review and Meta-Analysis of Conversions and Complications. American Association of Gynecologic Laparoscopists (AAGL) Global Congress on Minimally Invasive Gynecologic Surgery. Vancouver, British Columbia, Canada. Presenter(s): Cusimano MC, Simpson AN, Dossa F, Liani V, Kaur Y, Acuna SA, Robertson D, Satkunaratnam A, Bernardini MQ, **Ferguson SE**, Baxter NN.

## Presentations National

- 2019 Jun 13 Impact of Surgical Approach on Oncologic Outcomes in Women Undergoing Radical Hysterectomy for Cervical Cancer. The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Cusimano MC, Baxter NN, Gien LT, Moineddin R, Liu N, Dossa F, Raziee HR, Willows K, **Ferguson SE**.
- 2019 Jun 13 Comparing Costs Between Robotics, Laparoscopy, and Laparotomy in Endometrial Cancer. The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Kosa SD, Ferguson SE, Panzarella T, Lau S, Gien LT, Samouelian V, Giede C, Steed H, Renkosinski B, **Bernardini MQ**.
- 2019 Jun 13 Lymphadenectomy for High-Risk Endometrial Cancer: Does it Impact Lymph Node Recurrence? The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Swift B, Philp L, Atenafu E, Malkani N, Gien LT, **Bernardini MQ**
- 2019 Jun 13 Use of Porphysomes to Detect Primary Tumour Lymph Node Metastases, Intra-Abdominal Metastases and as A Tool for Image-Guided Lymphadenectomy: Proof of Concept in Endometrial Cancer. The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Philp L, Chan H, Rouzbahman M, Overchuk M, Chen J, Zheng G, **Bernardini MQ**.
- 2019 Jun 14 The Prevent Ovarian Cancer Program (POCP): Identification of Women at Risk for Ovarian Cancer Using Complementary Recruitment Approaches. The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Tone A, McCuaig J, Kim R, Shaw P, Stockley T, **Bernardini MQ**.
- 2019 Jun 14 Cost Effectiveness of Maintenance Hormonal Therapy in Patients with Advanced Low Grade Serous Ovarian Cancer. The Society of Gynecologic Oncology of Canada 40th Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Nica A, **May T**.



# Presentations

## Local

- 2019 May 3 Resuming Chemotherapy After Interval Cytoreductive Surgery in Ovarian Cancer: The Impact of Time and Temperature. Department of Obstetrics and Gynecology 36th Annual Research Day. University of Toronto, Toronto, Ontario, Canada. Presenter(s): Clark M, **May T**.
- 2019 Sep 18 Multidisciplinary Ambulatory Management of Malignant Bowel Obstruction: A Qualitative Study of Gynecologic Cancer Patients' Experiences and Perceptions. 8<sup>th</sup> Annual Medical Student Research Showcase. Queen's University School of Medicine, Kingston, Ontario, Canada. Presenter(s): Sajewycz K, Cusimano MC, Nelson M, Jivraj N, Bowering V, Lee YC, Lheureux S, **Ferguson SE**.
- 2019 Oct 4 Biospecimen Collection and the Preventive Ovarian Cancer Clinic at Women's College Hospital: Integrating Translational Research Within A Clinical Care Program. 2nd Annual GU Biobank Conference. Toronto, Ontario, Canada. Presenter(s): Ene GEV, Collins SV, Tone AA, Allen LM, Sobel ML, Bernardini MQ, **May T**, Jacobson MR.
- 2019 Oct 4 Ovarian Cancer Biospecimen Collection Program for Translational Cancer Research Within A Canadian Cohort. 2nd Annual GU Biobank Conference. Toronto, Ontario, Canada. Presenter(s): Collins SV, Ene GEV, Tone AA, Bernardini MQ, **May T**.

## Posters

- 2019 Mar 7 Assessing Choices Among Women Undergoing Cancer Panel Genetic Testing: A Mixed-Methods Study. The Society of Behavioral Medicine 40<sup>th</sup> Annual Meeting and Scientific Sessions. Washington, District of Columbia, United States. Presenter(s): Shuldiner J, Knight J, Bombard Y, Metcalfe K, Kotsopoulos J, Ferguson SE, Tone A, McCuaig J, **Bernardini M**, Rodin G.
- 2019 Mar 16 Resuming Chemotherapy After Interval Cytoreductive Surgery in Ovarian Cancer: The Impact of Time and Temperature. The Society of Gynecologic Oncology 50<sup>th</sup> Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Clark M, **May T**.
- 2019 Mar 16 Streamlined Next-Generation Sequencing Panel Provides Comprehensive Molecular Assessment of Mismatch Repair Deficiency in Endometrial and Non-Serous Ovarian Cancer. The Society of Gynecologic Oncology 50<sup>th</sup> Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Tone A, Oldfield L, Van de Laar E, Li T, Cirlan I, Eiriksson L, Vicus D, Clarke B, Pugh T, **Ferguson SE**.
- 2019 Mar 16 A Multi-Centre Prospective Study Comparing Costs Between Robotics, Laparoscopy and Laparotomy in Management of Endometrial Cancer. The Society of Gynecologic Oncology 50<sup>th</sup> Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): Ferguson SE, Panzarella T, Lau S, Gien L, Samouëlian V, Giede C, Steed H, Renkosinski B, Kosa SD, **Bernardini MQ**.
- 2019 Mar 16 Ca125 Levels Are Predictive of Survival in Women with Low-Grade Serous Ovarian Carcinoma. The Society of Gynecologic Oncology 50<sup>th</sup> Annual Meeting on Women's Cancer. Honolulu, Hawaii, United States. Presenter(s): May T, Unninayar D, **Bernardini MQ**, Xu W, Tone A.
- 2019 Jun 14 Does Heated Chemotherapy After Survival Outcomes in Ovarian Cancer Mouse Model? The Society of Gynecologic Oncology of Canada 40<sup>th</sup> Annual General Meeting. Halifax, Nova Scotia, Canada. Presenter(s): Clark M, **May T**.
- 2019 Sep 19 Is Maintenance Letrozole Anti-Hormonal Therapy Cost-Effective in Patients with Advanced Low Grade Serous Ovarian Carcinoma? International Gynecologic Cancer Society 18<sup>th</sup> Biennial Meeting. Rio de Janeiro, Brazil. Presenter(s): Nica A, **May T**.
- 2019 Sep 19 Patients with Ovarian Clear Cell Carcinoma are at High Risk of Secondary Malignancy. Global Meeting of the International Gynecologic Cancer Society (IGCS2019) Rio de Janeiro, Brazil. Presenter(s): Nguyen J, Vicus D, Bernardini MQ, **Hogen L**.
- 2019 Nov 2 FIGO 2018 Stage IB2 ( $\geq 2$  to  $< 4$  cm) Cervical Cancer Treated with Neoadjuvant Chemotherapy Followed by Fertility Sparing Surgery (CoNteSSa)/Neoadjuvant Chemotherapy and Conservative Surgery in Cervical Cancer to Preserve Fertility (NeoCon-F). 21<sup>st</sup> European Congress on Gynaecological Oncology. Athens, Greece. Presenter(s): Plante M, van Trommel N, Lheureux S, Oza A, Wang L, Sikorska A, **Ferguson SE**, Han K, Amant F.

## Publications (all)

Jiang X, Finucane HK, Schumacher FR, Schmit SL, Tyrer JP, Han Y, Michailidou K, Lesueur C, Kuchenbaecker KB, Dennis J, Conti DV, Casey G, Gaudet MM, Huyghe JR, Albanes D, Aldrich MC, Andrew AS, Andrulis IL, Anton-Culver H, Antoniou AC, Antonenkova NN, Arnold SM, Aronson KJ, Arun BK, Bandera EV, Barkardottir RB, Barnes DR, Batra J, Beckmann MW, Benitez J, Benlloch S, Berchuck A, Berndt SI, Bickeböllner H, Bien SA, Blomqvist C, Boccia S, Bogdanova NV, Bojesen SE, Bolla MK, Brauch H, Brenner H, Brenton JD, Brook MN, Brunet J, Brunnström H, Buchanan DD, Burwinkel B, Butzow R, Cadoni G, Caldés T, Caligo MA, Campbell I, Campbell PT, Cancel-Tassin G, Cannon-Albright L, Campa D, Caporaso N, Carvalho AL, Chan AT, Chang-Claude J, Chanock SJ, Chen C, Christiani DC, Claes KBM, Claessens F, Clements J, Collée JM, Correa MC, Couch FJ, Cox A, Cunningham JM, Cybulski C, Czene K, Daly MB, deFazio A, Devilee P, Diez O, Gago-Dominguez M, Donovan JL, Dörk T, Duell EJ, Dunning AM, Dwek M, Eccles DM, Edlund CK, Edwards DRV, Ellberg C, Evans DG, Fasching PA, Ferris RL, Liloglou T, Figueiredo JC, Fletcher O, Fortner RT, Fostira F, Franceschi S, Friedman E, Gallinger SJ, Ganz PA, Garber J, García-Sáenz JA, Gayther SA, Giles GG, Godwin AK, Goldberg MS, Goldgar DE, Goode EL, Goodman MT, Goodman G, Grankvist K, Greene MH, Gronberg H, Gronwald J, Guénel P, Håkansson N, Hall P, Hamann U, Hamdy FC, Hamilton RJ, Hampe J, Haugen A, Heitz F, Herrero R, Hillemanns P, Hoffmeister M, Høgdall E, Hong YC, Hopper JL, Houlston R, Hulick PJ, Hunter DJ, Huntsman DG, Idos G, Imyanitov EN, Ingles SA, Isaacs C, Jakubowska A, James P, Jenkins MA, Johansson M, Johansson M, John EM, Joshi AD, Kaneva R, Karlan BY, Kelemen LE, Kühl T, Khaw KT, Khusnutdinova E, Kibel AS, Kiemeny LA, Kim J, Kjaer SK, Knight JA, Kogevinas M, Kote-Jarai Z, Koutros S, Kristensen VN, Kupryjanczyk J, Lacko M, Lam S, Lambrechts D, Landi MT, Lazarus P, Le ND, Lee E, Lejbkiewicz F, Lenz HJ, Leslie G, Lessel D, Lester J, Levine DA, Li L, Li CI, Lindblom A, Lindor NM, Liu G, Loupakis F, Lubiński J, Maehle L, Maier C, Mannermaa A, Marchand LL, Margolin S, **May T**, McGuffog L, Meindl A, Middha P, Miller A, Milne RL, MacInnis RJ, Modugno F, Montagna M, Moreno V, Moysich KB, Mucci L, Muir K, Mulligan AM, Nathanson KL, Neal DE, Ness AR, Neuhausen SL, Nevanlinna H, Newcomb PA, Newcomb LF, Nielsen FC, Nikitina-Zake L, Nordestgaard BG, Nussbaum RL, Offit K, Olah E, Olama AAA, Olopade OI, Olshan AF, Olsson H, Osorio A, Pandha H, Park JY, Pashayan N, Parsons MT, Pejovic T, Penney KL, Peters WHM, Phelan CM, Phipps AI, Plaseska-Karanfilska D, Pring M, Prokofyeva D, Radice P, Stefansson K, Ramus SJ, Raskin L, Rennert G, Rennert HS, van Rensburg EJ, Riggan MJ, Risch HA, Risch A, Roobol MJ, Rosenstein BS, Rossing MA, De Ruyck K, Saloustros E, Sandler DP, Sawyer EJ, Schabath MB, Schleutker J, Schmidt MK, Setiawan VW, Shen H, Siegel EM, Sieh W, Singer CF, Slattery ML, Sorensen KD, Southey MC, Spurdle AB, Stanford JL, Stevens VL, Stintzing S, Stone J, Sundfeldt K, Sutphen R, Swerdlow AJ, Tajara EH, Tangen CM, Tardon A, Taylor JA, Teare MD, Teixeira MR, Terry MB, Terry KL, Thibodeau SN, Thomassen M, Bjørge L, Tischkowitz M, Toland AE, Torres D, Townsend PA, Travis RC, Tung N, Tworoger SS, Ulrich CM, Usmani N, Vachon CM, Van Nieuwenhuysen E, Vega A, Aguado-Barrera ME, Wang Q, Webb PM, Weinberg CR, Weinstein S, Weissler MC, Weitzel JN, West CML, White E, Whittemore AS, Wichmann HE, Wiklund F, Winqvist R, Wolk A, Woll P, Woods M, Wu AH, Wu X, Yannoukakos D, Zheng W, Zienoldiny S, Ziogas A, Zorn KK, Lane JM, Saxena R, Thomas D, Hung RJ, Diergaarde B, McKay J, Peters U, Hsu L, García-Closas M, Eeles RA, Chenevix-Trench G, Brennan PJ, Haiman CA, Simard J, Easton DF, Gruber SB, Pharoah PDP, Price AL, Pasaniuc B, Amos CI, Kraft P, Lindström S. Shared Heritability and Functional Enrichment Across Six Solid Cancers. *Nat Commun.* 2019 Jan; 10(1): 431.

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