

# DR. NATHALIE SELA

## CURRICULUM VITAE

### Contact Information:

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### Highlights

1. **Clinical Fellowship:** ASTS accredited fellowship trained in liver, kidney, pancreas, multi-visceral, intestinal transplantation as well as hepatopancreatic biliary surgery in adult and pediatric patients. Training in laparoscopic surgery including laparoscopic living donor nephrectomy.
2. **Research:** MSc in Health Research Methodology and Clinical Epidemiology with focus on clinical outcomes in patients undergoing liver resection for colorectal liver metastases during a multi-center trial across Ontario. Authored and co-authored over 20 peer-reviewed articles, abstracts, and book chapter. Abstract presentations in 6 national meetings.
3. **Leadership:** Executive member of the planning committee for the Inter-professional Surgery and Anesthesia Summer School. Developed curriculum including practical and didactic workshops for first Canadian school to teach medical and nursing students basic surgical skills required for a career in the operating room. Current member of the education and scholarship committee of the International Liver Transplantation Society (ILTS).
4. **Teaching:** As elected member of the Residency Training Committee for 5 years, I lead and executed initiatives to improve the residency curriculum including implementation of the competency-based residency curriculum. Actively supervise resident and medical student education through didactic, clinical, and surgical skill teaching.

### Academic Background and Training:

<b>Abdominal Transplant Surgery Fellowship (ASTS Accredited)</b> <i>University of Nebraska Medical Centre</i> <i>Omaha, NE, United States</i>	08/2019-07/2021
<b>Western University General Surgery Residency Program</b> <i>London, ON, Canada</i>	07/2014- 06/2019
<b>Health Research Methodology</b> Masters of Science <i>Hamilton, ON, Canada</i>	09/2016-05/2017
<b>Schulich School of Medicine and Dentistry</b> Doctor of Medicine <i>London, ON, Canada</i>	09/2010-08/2014
<b>McGill University</b> Bachelor of Science <i>Montreal, QC, Canada</i>	09/2006-05/2010

### Board Certification, Exams, and Licenses

1. Fellow of the Royal College of Surgeon of Canada (FRCSC) – 2019- present

- Royal College of Physicians and Surgeons General Surgery Examination – 2019
- 2. Temporary Education Permit #8382 State of Nebraska – 2019 to present
- 3. College of Physicians and Surgeons of Ontario License #103166 – 2014-2019
- 4. College of Physicians and Surgeons of Alberta License # 028726 - 2017
- 5. Medical Council of Canada Qualifying Exam (LMCC)
  - Medical Council of Canada Qualifying Exam – Part 2 (MCCQE2) - 2015
  - Medical Council of Canada Qualifying Exam – Part 1 (MCCQE1) – 2014

### Professional Courses and Development

1. AHPBA Ultrasound & Advanced Technology Postgraduate Course – 2020
2. Advanced Surgical Skills for Exposure in Trauma (ASSET) Course - 2019
3. SAGES Advanced Laparoscopic Colorectal Surgery Certificate - 2018
4. SAGES Basic Laparoscopy and Endoscopy Surgery Certificate – 2015
5. Advanced Cardiac Life Support (ACLS) – 2014
6. Advanced Trauma Life Support (ATLS) – 2014

### Journal Publications:

1. Sela N, Anderson BL, Granatowicz AT, Jesewski E, Hoffman AL. Gender Differences in Authorship Among Hepato-Pancreatico-Biliary Surgeons. *Accepted to HPB*. 2020.
2. Sela N, Anderson BL, Moulton AM, Hoffman AL. Gender Differences in Authorship Among Transplant Physicians: Are We Bridging the Gap? *J Surg Res*. 2020 Nov 4:S0022-4804(20):30703-4.
3. Anderson B, Jezewski E, Sela N, Westphal S, Hoffman A. Public health service increased risk donor kidney grafts for transplant into children, a survey of pediatric nephrologists. *Pediatr Transplant*. 2020 Oct 7:e13863.
4. Yang M, Murphy PB, Allen L, Sela N, Govind S, Leslie K, Vogt KN. Venous thromboembolism in emergency general surgery patients: a single centre retrospective cohort study. *Can J Surg*. 2020 Feb 26;63(1):E80-85.
5. Tun-Abraham ME, Wanis KN, Garcia-Ochoa C, Sela N, Sharma H, Al-Hasan I, Quan D, Al-Judaibi, Levstik M, Hernandez-Alejandro R. Can we reduce ischemic cholangiopathy in donation after cardiac death liver transplantation after 10 years of experience? Canadian single-centre experience. *Can J Surg*. 2019 1;62(1):44-51.
6. Serrano PE, Gu CS, Husien M, Jalink D, Ritter A, Martel G, Tsang ME, Law CH, Hallet J, McAlister V, Sela N, Solomon H, Moulton CA, Gallinger S, Levine M. Risk factors for survival following recurrence after first liver resection for colorectal cancer liver metastases. *J Surg Oncol*. 2019 Dec;120(8):1420-1426. doi: 10.1002/jso.25735.
7. Khot Z, Murphy PB, Sela N, Parry NG, Vogt K, Ball IM. Incidence of Intra-abdominal Hypertension and Abdominal Compartment Syndrome: A Systematic Review. *J Intensive Care Med*. 2019 Dec 6:885066619892225. doi: 10.1177/0885066619892225.

8. **Sela N**, Allen L, Murphy PB, Yang M, Patton, Parry NG, Vogt KN. Obesity may not matter in Emergency General Surgery Patients: An Analysis of the association between Body Mass Index and Morbidity. 2019. *Submitted to American Surgeon*
9. Murphy PB, **Sela N**, Allen L, Parry NG, Vogt KN. Intra-abdominal Hypertension Is More Common Than Previously Thought: A Prospective Study in A Mixed Medical-surgical Intensive Care Unit. *Crit Care Med*. 2018; 46(6):958-964.
10. **Sela N**, Croome KP, Chandok N, Marotta P, Wall W, Hernandez-Alejandro R. The changing donor characteristics in liver transplantation over the last 10 years in Canada. *Liver Transpl*. 2013; 19(11): 1236-1244.
11. Hernandez-Alejandro R, Croome KP, Drage M, **Sela N**, Parfitt J, Chandok N, Marotta P, Dale C, Wall W, Quan D. A comparison of survival and pathologic features of non-alcoholic steatohepatitis and hepatitis C virus patients with hepatocellular carcinoma. *World J Gastroenterol*. 2012; 18(31): 4145-4149.

**Book Chapter:**

1. Truitt MS, Percy C, Demaro P, **Sela N**, Alkhamesi NA. "Colon Emergencies" In *The SAGES Manual of Acute Care Surgery*, edited by David Renton, Robert Lim, Alberto S. Gallo, Prashant Sinha. 2020.

**Abstracts Presented (Presenter underlined):**

1. Sela N, Anderson BL, Hoffman AL, Merani S, Ramos IR, Stefanou A. Gender Differences in Reimbursement Among Colorectal Surgeons in United States. *Accepted to American Society of Colon and Rectal Surgeons Annual Scientific Meeting, San Diego, California, United States*. Apr 25, 2021.
2. Serrano Aybar, Gu CS, Husein M, Jalink D, Martel G, Tsang ME, Hallett JI, Gallinger S, Ritter A, McAlister V, Sela N, Solomon H, Beyfuss K, Li C, Lee E, Moulton CA, Levine MN. Effect of PET-CT on disease recurrence and its management in patients with potentially resectable colorectal cancer liver metastases. The long-term results of randomized control trial (PET-CT imagining prior to liver resection for colorectal adenocarcinoma metastases). *American Society of American Oncology, Chicago, Illinois, United States*. June 1-5, 2018.
3. Sela N, LeBlanc D, and Skaro A. Systematic review and meta-analysis: mTOR inhibitor as de novo and early immunosuppressive regime in liver transplant patients. *Resident Research Day, London, Ontario, Canada* May 5, 2017.
4. Sela N, Murphy PB, Allen L, Yang M, Patton P, Leslie K, Parry NG, and Vogt KN. Obesity in Emergency General Surgery Procedures: An analysis of the association between BMI, morbidity and mortality. *Canadian Surgery Forum, Toronto, Ontario, Canada* Sept 9, 2016.
5. Sela N, Murphy PB, Allen L, Yang M, Patton P, Leslie K, Parry NG, and Vogt KN. Obesity in Emergency General Surgery. *Resident Research Day, London, Ontario, Canada* Apr 29, 2016.
6. Sela N, Bertens KA, Welch S, Chung J, Yoshy C, Hernandez-Alejandro R. Using the clinical risk score to predict which patients will benefit from pre-operative chemotherapy for colorectal liver metastases. *Americas Hepato-Pancreatico-Biliary Association, Miami, Florida, United States* Mar 11-15, 2015

7. Sela N, Bertens KA, Welch S, Chung J, Yoshy C, Hernandez-Alejandro R. Using the clinical risk score to predict which patients will benefit from pre-operative chemotherapy for colorectal liver metastases. *Resident Research Day, London, Ontario, Canada* Apr 24, 2015.
8. Sela N, Croome KP, Chandok N, Marotta P, Wall W, Hernandez-Alejandro R. Demographic trends in Canadian Liver Donors. *Transplantation Rounds, London, Ontario, Canada* Apr 12, 2013.
9. Sela N, Croome KP, Chandok N, Marotta P, Wall W, Hernandez-Alejandro R. The changing donor characteristics in liver transplantation over the last 10 years in Canada. *Canadian Society of Transplantation Conference, Lake Louise, Alberta, Canada* Mar 13-16, 2013
10. Howe B., Croome KP., Sela N, Hernandez-Alejandro R. Major Hepatectomy for Colorectal Liver Metastasis in the Elderly. *Americas Hepato-Pancreato-Biliary Association Annual Meeting: Miami Beach, Florida* February 20-24, 2012.
11. Zhuruk A., Croome K., Leeper R., Sela N, Hernandez-Alejandro R. Predictors of Early Post-Operative Mortality Following Right Extended Hepatectomy. *Americas Hepato-Pancreato-Biliary Association Annual Meeting: Miami Beach, Florida* February 20-24, 2012.

#### **Invited Presentations**

1. Sela N, Shum J. Functional Neuroendocrine Tumors. *General Surgery Grand Rounds, Sudbury, Ontario, Canada*. May 23, 2017.
2. Sela N, Shum J. Role of Venous Resection in Whipple Operation. *General Surgery Grand Rounds, Sudbury, Ontario, Canada*. May 9, 2017.
3. Sela N, Shum J. Case: Right Lower Quadrant Pain. *Medical Student Teaching, Sudbury, Ontario, Canada*. May 29, 2017.
4. Sela N, Croome KP, Chandok N, Marotta P, Wall W, Hernandez-Alejandro R. Demographic trends in Canadian Liver Donors. *HPB Rounds, Halifax, Nova Scotia, Canada* November 20, 2013.
5. Sela N, Croome KP, Chandok N, Marotta P, Wall W, Hernandez-Alejandro R. Demographic trends in Canadian Liver Donors. *Transplantation Grand Rounds, London, Ontario, Canada* Apr 12, 2013.

#### **Teaching Presentations**

1. Sela N, Brackstone M. Breast Malignant. *Resident Teaching Session, London, Ontario, Canada*. Oct 31, 2019.
2. Sela N, Leeper R. Trauma Resuscitation. *Medical Student Teaching, London, Ontario, Canada*. Mar 6, 2018.
3. Sela N, Hilsden R. Pancreatic Malignancy. *Resident Teaching Session, London, Ontario, Canada*. Feb 16, 2018.
4. Sela N, Leslie K. Gastric Benign. *Resident Teaching Session, London, Ontario, Canada*. Jan 14, 2018.
5. Sela N, Shum J. Case: Right Lower Quadrant Pain. *Medical Student Teaching, Sudbury, Ontario, Canada*. May 29, 2017.
6. Sela N, Quan D. Liver Benign. *Resident Teaching Session, London, Ontario, Canada*. Feb 9, 2016.

7. Sela N, Alkhamesi NA. Small Intestine: Crohn's Disease. *Resident Teaching Session, London, Ontario, Canada.* Mar 27, 2015.

### Research Grants and Awards

D.M. Grace Award for excellence in clinical care	07/2019
Resident Travel Award	09/2017
Schulich Research Opportunities Program Award	04/2012
NSERC Undergraduate Student Research Award	04/2009
Faculty of Science Scholarship	09/2009
Emily Ross Crawford Scholarship	09/2009
FRSQ Undergraduate Student Research Award	09/2008
George and Lidia Petras Scholarships in Science	09/2007
McConnell Award	09/2007

### Research Experience:

- 1. University of Nebraska Abdominal Transplant Surgery Fellowship (ASTS Accredited)** 2019- present  
Research Assistant: Supervisor: Dr. Arika Hoffman
  - Collected and analyzed clinical research data in Abdominal Transplantation
  - Compiled and outlined research in topics including gender disparities in abdominal transplantation and high-risk grafts in pediatric liver transplantation
- 2. Western University General Surgery Residency, London, ON** 2016- 2019  
Research Assistant: Supervisor: Dr. Anton Skaro
  - Collected and analyzed clinical research data in Liver transplantation
  - Compiled and outlined research results to colleagues
- 3. Western University General Surgery Residency, London, ON** 2015  
Research Assistant: Supervisor: Dr. Kelly Vogt
  - Collected and analyzed clinical research data in Acute Care Surgery and Traumatology
- 4. Schulich School of Medicine and Dentistry, London, ON** 2011- 2019  
Research Assistant: Supervisor: Dr. Roberto Hernandez-Alejandro
  - Collected and analyzed clinical research data in Hepatobiliary surgery and liver Transplantation
  - Assisted in the development of a porcine animal model for cardiac death liver donors
- 5. McGill University, Montreal, QC – Research Laboratory** 2009  
Laboratory Assistant: Supervisor Dr. Francois Fagotto
  - Conducted research on a therapeutic target implicated in metastasis of carcinomas
  - Developed and optimized a purification protocol for the protein
  - Collected and analyzed experimental results obtained using biochemical techniques
- 6. McGill University, Montreal, QC – Research Laboratory** 2008  
Laboratory Assistant: Supervisor Dr. David Y. Thomas
  - Cloned and purified 36 different endoplasmic reticulum chaperones and conducted successful interaction studies on two proteins using biochemical techniques
  - Collaborated with a second team of researchers to expand the scope of the project

### Academic and Leadership Activities:

- 1. Member of Education and Scholarship Committee for International Liver Transplantation Society (ILTS)** 2020-2022  
*Executive member and trainee representative*

  - Developed and executed the Regional Expansion Advanced Learning Project with outreach to Latin American liver transplant programs
  - Collaborate with international transplant physicians and surgeons
- 2. Member of Resident Training Committee, London Health Sciences Centre, London, ON** 2015- 2019  
*Executive member and class representative*

  - Collaborate with staff surgeons to develop and improve residency curriculum
  - Spearhead, advocate, and execute new program initiatives
- 3. Canadian Surgical Technologies and Advanced Robotics (CSTAR), London Health Sciences Centre, London, ON** 2011  
*Executive member of the planning committee for the Inter-professional Surgery and Anesthesia Summer School*

  - Developed curriculum for first Canadian summer school to teach medical and nursing students basic surgical skills required for a career in the operating room
  - Organized and executed practical and didactic workshops in operating room topics
- 4. Schulich School of Medicine and Dentistry, London, ON** 2010  
*Founder and executive member of the Oncology Interest Group*

  - Founded oncology club to educate medical students regarding careers in medical, radiation, and surgical oncology
  - Planned, organized, and executed educational talks featuring guest physician speakers
  - Collaborated with co-executives and physicians to promote observership and research opportunities for medical students
- 5. Schulich School of Medicine and Dentistry, London, ON** 2010  
*Executive member of the Medical Skills Club*

  - Organized and executed workshops to teach medical students basic clinical and surgical in preparation for clerkship and beyond
  - Collaborated with co-executives to expand the club's activities to include educational videos for physical exams

### Professional Memberships

1. International Liver Transplantation Society (ILTS) - 2020
2. American Society of Transplant Surgeons (ASTS) - 2019
3. Canadian Association of General Surgeons (CAGS) - 2014
4. American College of Surgeons (ACS) - 2014
5. Canadian Society of Transplantation (CST) - 2012
6. Canadian Medical Association /Ontario Medical Association (CMA/OMA) -2010