



Updates in Endoscopic Management

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Minimally Invasive & Bariatric Surgery
Therapeutic & Bariatric Endoscopy

Name: **Andras Fecso** - "XXIX World Congress IFSO – May 2026"



XXIX IFSO World Congress

**1-4 September 2026
Toronto, Canada**

Financial Disclosures (over past 24 months)

	Speaker	Advisory	Research	Consultant
Boston Scientific				√
Johnson & Johnson				√

TORONTO2026

**The Future of Obesity Management:
From Weight Loss to Health Gain**



10th Century: The Case of King Sancho I

In the 900s, King Sancho I of Leon, known as “Sancho the Fat,” was treated for obesity by Jewish physician Hasday Ibn Shaprut. His lips were sewn shut to enforce a liquid-only diet, leading to significant weight loss and allowing him to reclaim his throne.

History of Bariatric Endoscopy

- Garren-Edwards Gastric Bubble FDA approved in 1985 and removed from market in 1992
- Bioenterics Intragastic Balloon (BIB) CE-mark and commercialization; 1997
- Bard EndoCinch Suture System FDA approved for tissue approximation and treatment of symptomatic GERD; 2000

1985-2000



2006

- First instructional DVD on Bariatric Endoscopy (ASGE) - C. Thompson



2012

- First-in-human ESG with Apollo OverStitch - C. Thompson and R. Hawes, India
- ASGE Special Interest Group (SIG) in Bariatric Endoscopy - C. Thompson and N. Kumar
- Launch of Bariatric Endoscopy and Foregut Endosurgery Fellowship at BWH - C. Thompson

2013

- First-in-human Duodenal Mucosal Resurfacing (Reviva) - M. Galvao Neto, L. Rodriguez-Grunert and P. Becerra, Chile
- TORé US Multicenter Randomized Sham-controlled Trial (RESTORé Trial) - C. Thompson et al
- First Annual Madrid International Bariatric Endoscopy (MIBE) Course - G. Lopez-Nava
- First Textbook of Bariatric Endoscopy - C. Thompson, Editor



2015

- Founding of the Association for Bariatric Endoscopy (ABE) - N. Kumar, B. Abu Dayyeh, S. Sullivan, S. Jonnalagadda, M. Larsen, C. Thompson (Co-chair), P. Blake (ASGE CEO) and S. Edmundowicz (Co-chair)
- First-in-human ESD-TORé, combining third space and bariatric endoscopy - C. Thompson
- First-in-human Endomina procedure - V. Huberty, Belgium



2018

- Obalon Balloon US Pivotal Trial (SMART Trial) - S. Sullivan et al
- Short-term outcomes of endoscopic sleeve gastroplasty in 1000 consecutive patients - A. Alqahtani et al, Saudi Arabia



2022

- ESG US Multicenter Randomized Controlled Trial (MERIT Trial) - B. Abu Dayyeh et al
- FDA Grants De Novo Marketing Authorization to Apollo Endosurgery for Apollo ESG™ and Apollo REVISE™
- Pylorus Sparing Antral Myotomy for weight loss – third space only procedure without suturing - C. Thompson, Boston



- First applications of endoscopic suturing for weight loss
- First-in-human gastrogastric fistula closure - C. Thompson, Boston
- First-in-human Transoral Outlet Reduction (TORé) - C. Thompson, Boston
- First-in-human Endoluminal Vertical Gastroplasty (EVG) - R. Fogel, Venezuela
- "Director of Bariatric Endoscopy" title created at Brigham and Women's Hospital - C. Thompson



2003



- Predecessor to Endoscopic Sleeve Gastroplasty (ESG) - Bard TRIM Clinical Trial; S. Brethauer, B. Chand, P. Schauer and C. Thompson, USA
- First-in-human Primary Obesity Surgery Endoluminal procedure (POSE) - S. Horgan, Argentina
- First-in-human Restorative Obesity Surgery Endoluminal procedure (ROSE) - C. Thompson, Boston
- First-in-human Duodenal Jejunal Bypass Liner (Endobarrier) - L. Rodriguez-Grunert and M. Galvao Neto, Chile

2008



- First US annual Flexible Endoscopic Surgery and Bariatric Endoscopy Course - C. Thompson and L. Swanstrom, Miami Beach
- First-in-human magnetic anastomosis/enteral diversion for metabolic disease - E. Machyka, M. Bužga, M. Ryou, P. Zonca, D. Lautz and C. Thompson, Czech Republic

2014



- Orbera Balloon US Pivotal Trial - A. Courcouas et al
- AspireAssist US Pivotal Trial (PATHWAY Trial) - C. Thompson et al

2017



2021

- Five-year Outcomes of ESG - R. Sharaiha et al, New York
- First-in-human Gastroplasty with Endoscopic Myotomy – combination of third space and primary EBMT (GEM) - C. Thompson, Boston
- Spatz Balloon US Pivotal Trial - B. Abu Dayyeh et al

2020

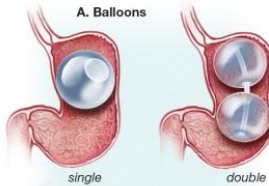
- Bariatric Endoscopy Live (BEL) - Global - E. de Moura, C. Thompson and D. de Moura
- Five-year outcomes of TORé for weight regain after RYGB - P. Jirapinyo et al, Boston



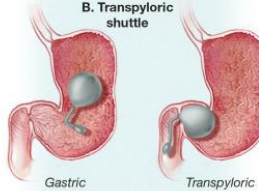
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I. Gastric interventions

A. Balloons



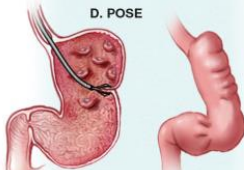
B. Transpyloric shuttle



C. Endoscopic sleeve gastroplasty



D. POSE



E. Gastric aspiration



II. Small bowel interventions

A. Duodenojejunal diversion



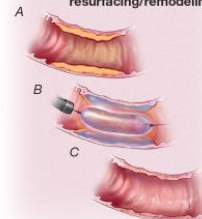
B. Gastroduodenojejunal bypass



C. Jejunum ileal diversion



D. Duodenomucosal resurfacing/remodeling

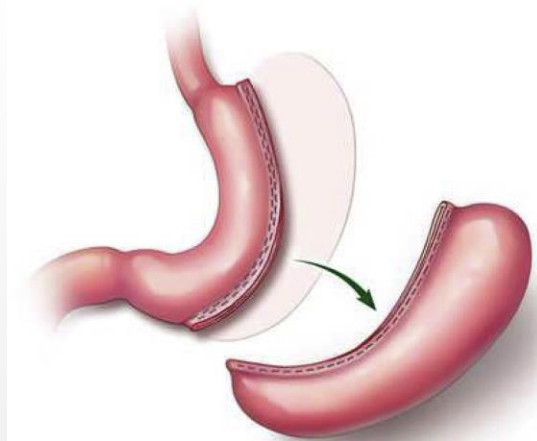


Endoscopic Bariatric Therapies



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2016

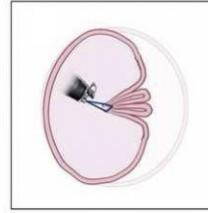
Dayyeh et al. - Clinical Practice Update: Expert Review on Endoscopic Bariatric Therapies, Gastroenterology, 2017



A



B



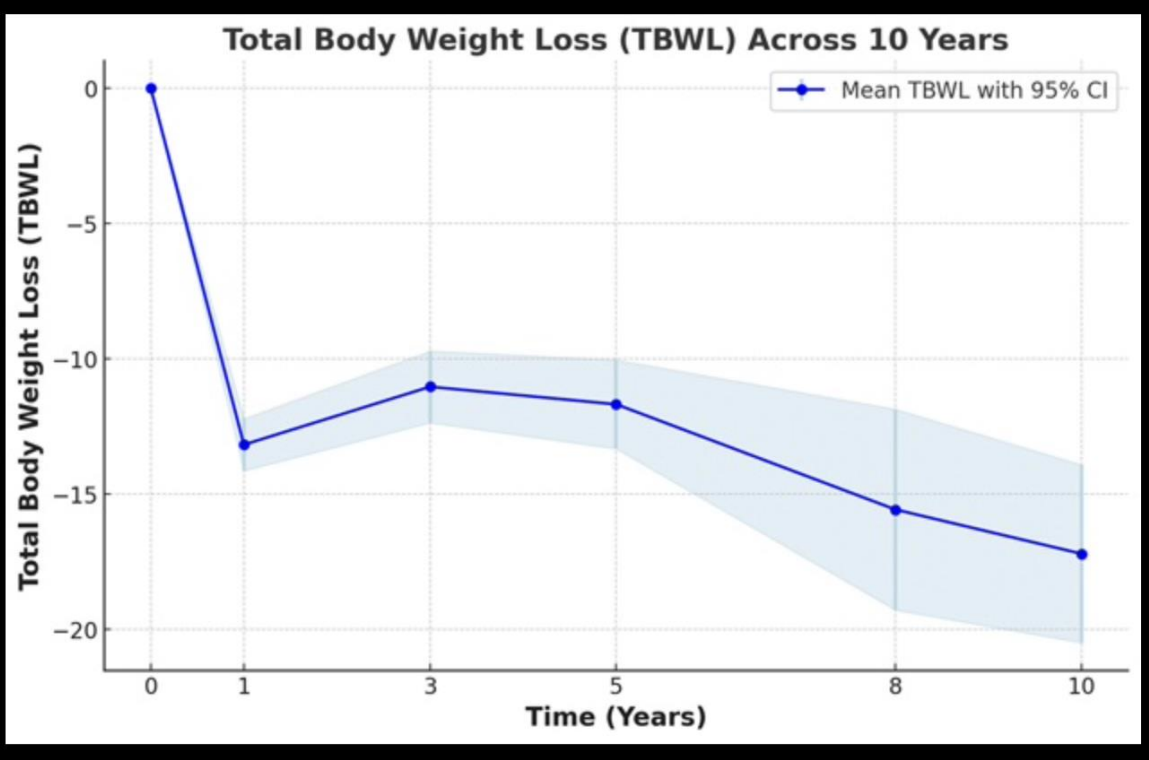
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2016

Bazerbachi, Fateh et al. - The pressure is on! Endoscopic sleeve gastroplasty versus laparoscopic sleeve gastrectomy: toward better patient allocation beyond pygmalionism - Gastrointestinal Endoscopy, Volume 89, Issue 4, 789 - 791

- Reduces gastric volume by 75-80%
- Less invasive
- Organ sparing
- Potentially reversible
- Similar safety profile
- Comparable results
- Improved GERD
- Ability for surgical conversion



Courtesy: Boston Scientific



- 404 pts followed for 10 yrs
- Mean TBWL 15.8%
- 10.9 % ESG revision
- 0.01 % serious AE

S2063 Ten-Year Outcomes of Endoscopic Sleeve Gastroplasty for the Treatment of Obesity

Lahooti, Ali BS¹; Rizvi, Anam MD¹; Baig, Muhammad Usman. MBBS¹; Akagbosu, Cynthia MD, MA¹; Mahadev, SriHari MD²; Sampath, Kartik MD¹; Carr-Locke, David L. MA, MD, FACP¹; Aronne, Louis MD¹; Shukla, Alpana MD¹; Johnson, Kate E. BS¹; Herr, Andrea NP¹; Newberry, Carolyn MD²; Kumar, Sonal MD, MPH¹; Sharaiha, Reem MD¹

Author Information

The American Journal of Gastroenterology 119(10S):p S1473-S1474, October 2024. | DOI: 10.14309/01.ajg.0001037620.30740.d4

Bariatric Endoscopy Monday, May 8, 2023 12:30 PM - 1:30 PM

Poster Session

TEN-YEAR EFFICACY OF ENDOSCOPIC SLEEVE GASTROPLASTY (ESG)

Pichamol Jirapinyo, Nitin Kumar, Sohail Shaikh, Roberto Trasolini, Michele Ryan, Christopher Thompson



UHN Canada's Hospital

Gastric fundal mucosal ablation followed by endoscopic sleeve gastroplasty in adults with obesity

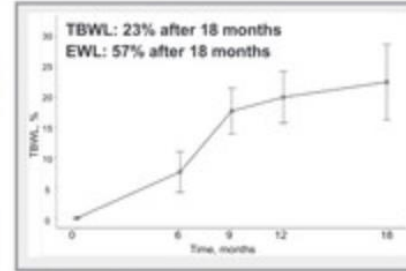
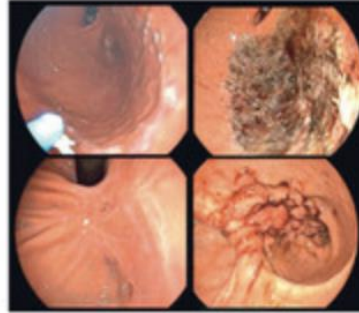
Studies show GFMA reduces ghrelin and is associated with weight loss; does adding GFMA before ESG improve outcomes vs. ESG alone?

Study: Prospective, single-arm, first-in-human two-phase pilot clinical trial

Patients: 10 adults with obesity (mean BMI 41 kg/m²)

Intervention: GFMA at baseline then ESG at month 6; follow-up to month 18

Comparison: Within-subject: baseline vs. post-GFMA (6 months) vs. post-ESG (up to 18 months)



Mean free plasma ghrelin:
462 pg/mL at baseline
255 pg/mL 6 months after GFMA

ESG, endoscopic sleeve gastroplasty; EWL, excess weight loss; GFMA, gastric fundal mucosal ablation; TBWL, total body weight loss

Sequential GFMA → ESG was safe and durable, achieving 23% TBWL at 18 months with reduced nutrient tolerance and improved eating behavior, without surgery

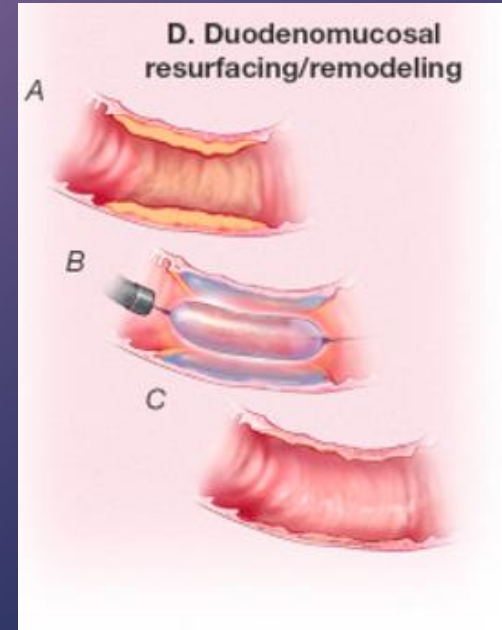
Endoscopy

Clinical Trial > Endoscopy. 2026 Mar 26. doi: 10.1055/a-2823-8603. Online ahead of print.

Gastric fundal mucosal ablation followed by endoscopic sleeve gastroplasty in adults with obesity: a first-in-human two-phase pilot clinical trial

Sanjay R V Gadi¹, Daniel B Maselli^{2,3}, Lauren L Donnangelo², Chase Wooley⁴, Taylor Comer⁴, Shannon Casey⁴, Aryan Jain⁵, Aditya Jain⁶, Christopher G Chapman⁷, Nader Bakheet^{8,9}, Dilhana Badurdeen⁹, Vivek Kumbhari⁹, Christopher E McGowan⁴

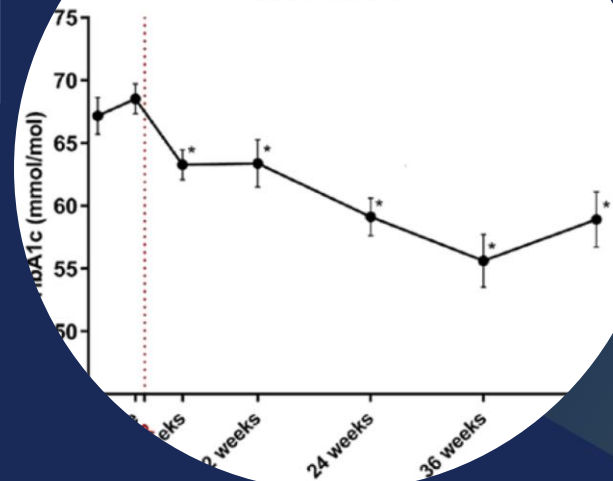
- Critical physiological and pathophysiological role of small bowel in metabolic homeostasis
- Goal is to regenerate the small bowel mucosa to improve metabolic parameters



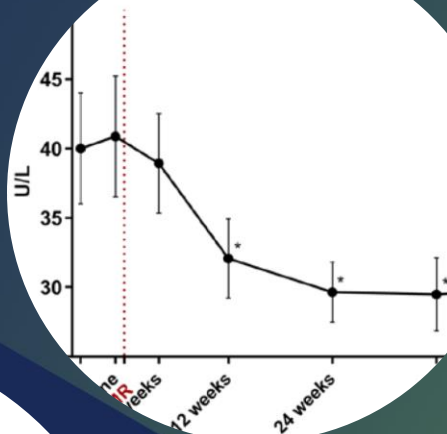
- 1 - Habegger KM, al-Massadi O, heppner KM, *et al.* Duodenal nutrient exclusion improves metabolic syndrome and stimulates villus hyperplasia. *Gut* 2014;63:1238–46.
- 2 - Batterham rl, cummings De. Mechanisms of Diabetes improvement Following Bariatric/Metabolic surgery. *Diabetes Care* 2016;39:893–901
- 3 - Mingrone g, Panunzi s, De gaetano a, *et al.* Bariatric-metabolic surgery versus conventional medical treatment in obese patients with type 2 diabetes: 5 year follow-up of an open-label, single-centre, randomised controlled trial. *Lancet* 2015;386:964–73.
- 4 - Schauer Pr, Bhatt DI, Kirwan JP, *et al.* Bariatric surgery versus intensive medical therapy for diabetes--3-year outcomes. *N Engl J Med* 2014;370:2002–13.
- 5 - Puzziferri n, Roshek TB, Mayo hg, *et al.* long-term follow-up after bariatric surgery: a systematic review. *JAMA* 2014;312:934–42.



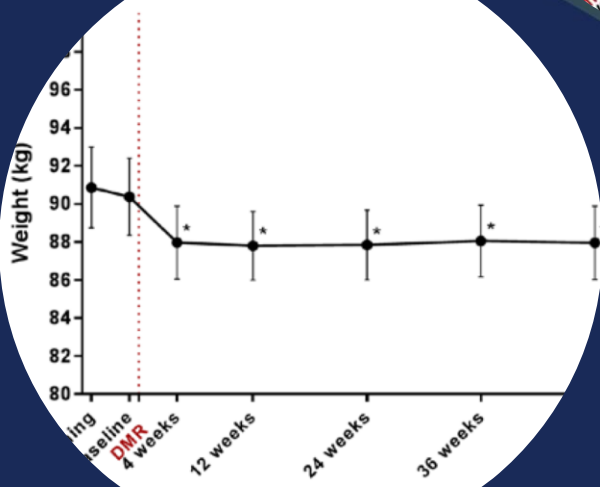
Mean HbA1c



ALT



Weight



[Clinical Trial](#) > [Gut](#). 2020 Feb;69(2):295-303. doi: 10.1136/gutjnl-2019-318349.

Epub 2019 Jul 22.

Endoscopic duodenal mucosal resurfacing for the treatment of type 2 diabetes mellitus: one year results from the first international, open-label, prospective, multicentre study

Annieke C G van Baar¹, Frits Holleman², Laurent Crenier³, Rehan Haidry⁴, Cormac Magee⁵, David Hopkins⁶, Leonardo Rodriguez Grunert⁷, Manoel Galvao Neto^{8,9}, Paulina Vignolo⁷, Bu'Hussain Hayee¹⁰, Ann Mertens¹¹, Raf Bisschops¹², Jan Tijssen¹³, Max Nieuwdorp¹⁴, Caterina Guidone¹⁵, Guido Costamagna¹⁶, Jacques Devière¹⁷, Jacques J G H M Bergman¹

Affiliations + expand

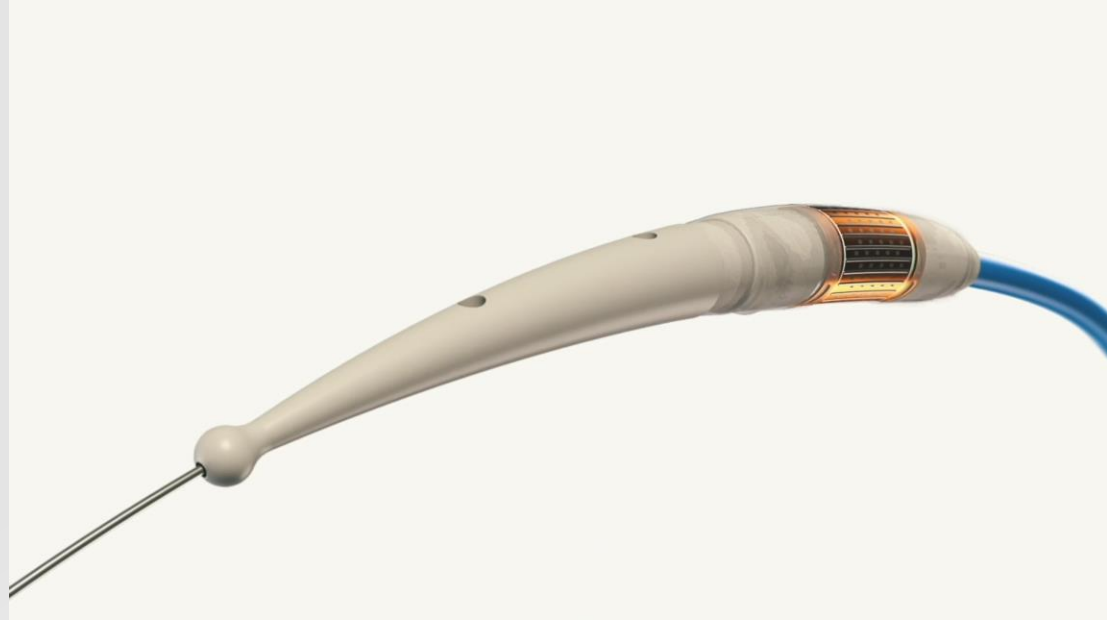
PMID: 31331994 PMID: [PMC6984054](#) DOI: [10.1136/gutjnl-2019-318349](#)



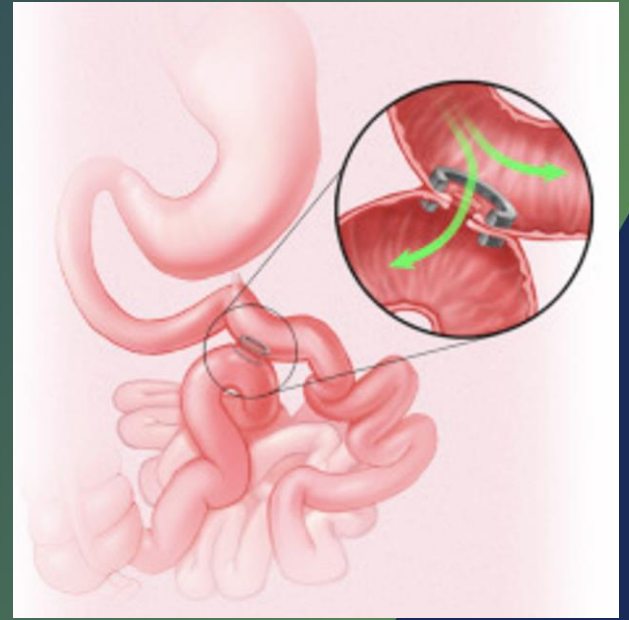
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ReCET Procedure

- Recellularization via electroporation therapy (ReCET) is an investigational, non-thermal procedure that uses electroporation (PEF – pulsed electric field) to induce cellular apoptosis and subsequent reepithelization



Source – Youtube, Endogenex



The update... COMBINATION THERAPY



ENDOBIARIATRIC TEAM



Dr. Andras B. Fecso, MD
Surgeon
Endobariatric Program Lead



Dr. Allan Okrainec, MD
Surgeon
Bariatric Program Director



Dr. Tim Jackson, MD
Surgeon
Division Head of General Surgery



Laura Scott, RD, MHM(c)
Patient Care Coordinator
Interdisciplinary EndoBariatric Team Lead



Gifty Mahama, BScN, RN, MN
Bariatric Program Manager



Dr. Sanjeev Sockalingham, MD
Psychiatrist



Intekhab Hossain, MD
Minimally Invasive Surgery Fellow



Kelly Chen, RD
Registered Dietitian



Stella Paterakis, RD
Registered Dietitian



Chau Du, MSc, RP
Psychometrist



Sasha-Ann Winchester, MSW
Social Worker



Mariyam Bajwa, RN
Registered Nurse



Lorraine Whitehead, RN
Registered Nurse



Wei Wang, NP
Nurse Practitioner



Christine Estonilo
Administration

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