

CURRICULUM VITAE

Michele Diana MD, Ph.D

General Surgeon & Surgical Scientist

Contract Professor @ University of Strasbourg



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Education

Degree	Institution	Year
Venia Legendi (HDR, French Diploma enabling to supervise research)	Doctoral School Life and Health, University of Strasbourg, France Thesis: Endoscopic Luminescent Imaging for Precision Oncology Surgery: the ELIOS project (grade: very good and jury congratulations)	2017
Ph.D in Medical Sciences	Doctoral School Life and Health, University of Strasbourg, France Thesis: Fluorescence-based Enhanced Reality for real-time evaluation of visceral perfusion (grade: very good and jury congratulations)	2016
Certificate for Animal Experimentation (Level 1, Responsible for Research Projects)	Practical School of High Studies, Sorbonne University (Paris) and Medical School of Dijon (France)	2013
University Diploma in Biomedical Engineering	Pierre & Marie Curie University, Paris (France) Thesis: Concept, design and development of a novel minimal invasive magnetic anastomotic device (grade: very good)	2011
Medical Degree (MD)	Catholic University of the Sacred Heart, Rome (Italy) Thesis: The role of impaired intestinal permeability and resident microbiota overgrowth in the passage from Non-Alcoholic Steatosis to Non-Alcoholic Steato-hepatitis (grade: SUMMA CUM LAUDE; 110/110 and jury congratulations)	2003

Current positions and affiliations

Position	Affiliation	Since
Contract Professor	University of Strasbourg, France Medicine, Maieutic and Health Sciences	Sept 2020
Faculty	iCUBE (The Engineering science, computer science and imaging laboratory), University of Strasbourg. Team: Photonics Instrumentation for Health https://healthphotonics.org/people/	February 2020
Medical-Scientific Director	Research Institute Against Digestive System Cancer (IRCAD), Strasbourg, France	Sept 2019
Staff Specialist Surgeon	Department of General, Endocrine and Digestive Surgery, Nouvel Hôpital Civil, University Hospital of Strasbourg, France Head: Professor Didier Mutter	June 2017

Past professional experiences

Position	Affiliation	Period
Founder and Director of the IHU-SPECTRA unit (Innovation HUB for Shining Perioperative EndosCopic TheRAnostics) https://www.ihu-strasbourg.eu/en/innovation/translational-rd/research-teams/	IHU-Strasbourg, Institute of Image-Guided Surgery, Strasbourg, France	January 2017-Sept 2019
Director of the Research Unit on Endo-laparoscopic Procedures.	IHU-Strasbourg, Institute of Image-Guided Surgery, Strasbourg, France Head: Professor Jacques Marescaux	November 2014 - to Sept 2019
Senior Surgical Researcher at the IRCAD, Research Institute against the Cancer of the Digestive System, Strasbourg, France	Research Institute Against Digestive System Cancer (IRCAD), Strasbourg, France Head: Professor Jacques Marescaux	July 2013 - to Sept 2019
Coordinator of the Biodesign program of the IHU-Strasbourg (I-SIP, Imaging the Future, IHU-School of Innovation Program), jointly with Prof Lee Swanström. MEDICAL DEVICES DESIGN AND DEVELOPMENT TEAM https://www.ihu-strasbourg.eu/en/innovation/translational-rd/research-teams/	IHU-Strasbourg, Institute of Image-Guided Surgery, Strasbourg, France.	October 2012 - July 2013
Staff Researcher	Physiology Institute, EA3072, Mitochondria and oxidative stress, University Louis Pasteur, Strasbourg, France Head of the lab: Professor Bernard Geny	July 2012 - to February 2020
Research Fellow in Minimally Invasive Surgery (Sponsored by CHUV, University Hospital of Lausanne, Switzerland)	-Research Institute Against Digestive System Cancer (IRCAD), Strasbourg, France -Department of General, Endocrine and Digestive Surgery, Nouvel Hôpital Civil, University Hospital of Strasbourg, France Head: Professor Jacques Marescaux	April 2010 - October 2012
Resident in General, Emergency and Digestive Surgery Clinical rotations in: <ul style="list-style-type: none"> ▪ Intensive Care Unit (6 months) ▪ Emergency Department (1 year) ▪ Orthopaedics and Traumatology Department (6 months) Visceral Surgery Department (18 months)	Department of General and Digestive Surgery, University Hospital of Lausanne, Switzerland (Head of the Department: Professor Nicolas Demartines)	October 2006 - March 2010
Resident in Emergency Surgery (6 months)	Department of Surgery, Central Institute of the Valais Hospitals, Sion, Switzerland. Head: Professor Pierre-François Coenoud	April 2006 – October 2006
Resident in General surgery (12 months)	Department of Surgery, Regional Hospital of Neuchâtel, Neuchâtel, Switzerland. Head: Dr. Rémy Schneider	April 2005 – March 2006
Residency in General surgery (6 months)	Department of General and Emergency Surgery, Catholic University of the Sacred	July 2004-January 2005

	Heart, Rome, Italy. Head: Professor Giovanni-Battista Doglietto. Supervisor: Professor Daniele Gui	
Internship in Internal Medicine	Department of Internal Medicine and Hepatology, Catholic University of the Sacred Heart, Rome, Italy. Head: Professor Giovanni-Battista Gasbarrini. Supervisor: Professor Antonio Grieco	2002-2004
Internship in Gastroenterology	Department of Gastroenterology and Endoscopy. Catholic University of the Sacred Heart, Rome, Italy. Head: Professor Giovanni-Battista Gasbarrini. Supervisor Professor Giuseppe Fedeli	2001-2002
Internship in Pathology	Department of Anatomical Pathology. Catholic University of the Sacred Heart, Rome, Italy. Head: Professor Arnaldo Capelli. Supervisor Professor Libero Lauriola	2000-2001

Post-Graduate Courses (selected)

1. 3M course on immobilization techniques (Leysin, 27-29 October 2005)
2. Basic course in laparoscopic techniques (Geneva, 9 mars 2006)
3. Basic course on proctology (Geneva, 5-9 February 2007)
4. **Advanced Trauma Life Support (ATLS®) course** (Geneva, 7-9 may 2007)
5. Basic course in laparoscopic techniques (Lausanne, 14-16 may 2007)
6. Advanced course in laparoscopic surgery (Timisoara, 20-22 June 2007)
7. Basic Science Writing Course (Zurich, 4-6 December 2008)
8. **26th international Gastrointestinal Surgery Workshop (Davos 28 February-6 mars 2009)**
9. Laparoscopic Digestive Surgery Course (IRCAD/EITS, Strasbourg, 22-24 April 2010)
10. Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg, 17-21 may 2010)
11. Colorectal Surgery Course (IRCAD/EITS, Strasbourg, 25-26 June 2010)
12. Upper GI endoscopic techniques Course (IRCAD/EITS, Strasbourg, 28-29 June 2010)
13. Single Port Surgery Course (IRCAD/EITS, Strasbourg, 1-2 July 2010)
14. Laparoscopic digestive surgery course (IRCAD/EITS, Strasbourg, 27-30 Oct 2010)
15. Single Port Surgery Course (IRCAD/EITS, Strasbourg, 5 Nov 2010)
16. Colorectal Surgery Course (IRCAD/EITS, Strasbourg, 19-20 Nov 2010)
17. Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg 22-26 Nov 2010)
18. DaVinci® Surgical System Off-Site Training Program for a Console Surgeon (IRCAD/EITS, Strasbourg, 24 Nov 2010)
19. Minimal Invasive Endocrine Surgery Course (IRCAD/EITS, Strasbourg 23-25 June 2011)
20. Single Port and NOTES Course (IRCAD/EITS, Strasbourg 29 Sep-1 Oct 2011)
21. Flexible Endoscopy and Hybrid Endo-Laparoscopic Surgery (IRCAD/EITS) Strasbourg 19-20 October 2012)
22. Advanced course of Surgical Endoscopy (IRCAD/EITS, Strasbourg, 19-20 November 2012)
23. **Hands-on-course in Micro-surgery** (Surgery School “Fer à Moulin”, Paris, September 2014)
24. Workshop on Molecular Guided Surgery (New York, September 2016)
25. 8th Convention on Health Analysis and Management (Chamonix, 30 September 2016)
26. 3rd Radiosurgery Masterclass organized by the Radiosurgery Institute of Paris (Centre Hartmann) and by the IRCAD-Strasbourg (Strasbourg, 15-17 March, 2018)
27. Shifting to Value-based Healthcare: from theory to practice (Palais d'Iéna, Siège du Conseil Economique, Social et Environnemental, Paris, 16 May, 2018)
28. Radiosurgery Masterclass on urology cancers (Strasbourg, 10-11 December, 2018)
29. Abdominal ultrasonography hands-on course (Cully, Hôpital de Lavaux, Switzerland; 14-16 March 2019)
30. Radioprotection course (HESAV, High School of Health of Vaud; University Hospital of Lausanne; March 2019). Certificate as Expert in Radioprotection delivered by the Federal Office of Public Health.
31. Infoday on H2020 and Horizon Europe on Artificial Intelligence (Ministry of Economy and Finances, Paris; 5th July 2019)

Peer-reviewed publications (As per August 2022; H-Index = 40)[1-196]

- **Google scholar profile:**
<https://scholar.google.fr/citations?user=1HYUb68AAAAJ&hl=fr&cstart=0&pagesize=20>
 - **ResearchGate profile:** https://www.researchgate.net/profile/Michele_Diana
 - **ID ORCID:** orcid.org/0000-0002-1390-8486
 - **Web of Science Researcher ID:** [Y-4415-2018](https://www.webofscience.com/wos/author/uri/uri:asc:Y-4415-2018)
1. Shlomovitz E, Patel NR, Diana M, Pescarus R, Swanstrom LL (2022) Percutaneous Transgastric Duodenal Stenting and Gastrostomy Repair Using a Vascular Closure Device: Proof of Concept in a Porcine Model. *Surg Innov* 29:139-144
 2. Rodriguez-Luna MR, Okamoto N, Al-Taher M, Keller DS, Cinelli L, Hoskere Ashoka A, Klymchenko AS, Marescaux J, Diana M (2022) In Vivo Imaging Evaluation of Fluorescence Intensity at Tail Emission of Near-Infrared-I (NIR-I) Fluorophores in a Porcine Model. *Life (Basel)* 12
 3. Richard V, Stahli C, Giudicelli G, Worreth MD, Krahenbuhl N, Greiner E, Papastathi C, Diana M, Saadi A (2022) Does the socio-demographic profile of patients limit access to bariatric surgery? *Eat Weight Disord* 27:1457-1466
 4. Pruijboom T, Lindelauf A, Felli E, Sawor JH, Deliaert AEK, van der Hulst R, Al-Taher M, Diana M, Schols RM (2022) Perioperative Hyperspectral Imaging to Assess Mastectomy Skin Flap and DIEP Flap Perfusion in Immediate Autologous Breast Reconstruction: A Pilot Study. *Diagnostics (Basel)* 12
 5. Piccolo G, Barabino M, Pesce A, Diana M, Lecchi F, Santambrogio R, Opocher E, Bianchi PP, Piozzi GN (2022) Role of Indocyanine Green Fluorescence Imaging in Minimally Invasive Resection of Colorectal Liver Metastases. *Surg Laparosc Endosc Percutan Tech* 32:259-265
 6. Okamoto N, Al-Taher M, Mascagni P, Vazquez AG, Takeuchi M, Marescaux J, Diana M, Dallemagne B (2022) Robotic endoscopic cooperative surgery for colorectal tumors: a feasibility study (with video). *Surg Endosc* 36:826-832
 7. Muttillio EM, Mazzarella G, Picardi B, Rossi S, Cinelli L, Diana M, Baiocchini A, Felli E, Pessaux P, Felli E, Muttillio IA (2022) Treatment strategies for neuroendocrine liver metastases: a systematic review. *HPB (Oxford)*
 8. Knospe L, Gockel I, Jansen-Winkel B, Thieme R, Niebisch S, Moulla Y, Stelzner S, Lyros O, Diana M, Marescaux J, Chalopin C, Kohler H, Pfahl A, Maktabi M, Park JH, Yang HK (2022) New Intraoperative Imaging Tools and Image-Guided Surgery in Gastric Cancer Surgery. *Diagnostics (Basel)* 12
 9. Jansen-Winkel B, Dvorak M, Kohler H, Maktabi M, Mehdorn M, Chalopin C, Diana M, Gockel I, Barberio M (2022) Border Line Definition Using Hyperspectral Imaging in Colorectal Resections. *Cancers (Basel)* 14

10. Garzelli L, Felli E, Al-Taher M, Barberio M, Agnus V, Plaforet V, Bonvalet F, Baiocchini A, Nuzzo A, Paulatto L, Vilgrain V, Gallix B, Diana M, Ronot M (2022) MRI for the Detection of Small Bowel Ischemic Injury in Arterial Acute Mesenteric Ischemia: Preclinical Study in a Porcine Model. *J Magn Reson Imaging*
11. Ekman M, Girnyi S, Marano L, Roviello F, Chand M, Diana M, Polom K (2022) Near-Infrared Fluorescence Image-Guided Surgery in Esophageal and Gastric Cancer Operations. *Surg Innov*:15533506211073417
12. de'Angelis N, Khan J, Marchegiani F, Bianchi G, Aisoni F, Alberti D, Ansaloni L, Biffl W, Chiara O, Ceccarelli G, Coccolini F, Cicuttin E, D'Hondt M, Di Saverio S, Diana M, De Simone B, Espin-Basany E, Fichtner-Feigl S, Kashuk J, Kouwenhoven E, Leppaniemi A, Beghdadi N, Memeo R, Milone M, Moore E, Peitzmann A, Pessaux P, Pikoulis M, Pisano M, Ris F, Sartelli M, Spinoglio G, Sugrue M, Tan E, Gavriilidis P, Weber D, Kluger Y, Catena F (2022) Robotic surgery in emergency setting: 2021 WSES position paper. *World J Emerg Surg* 17:4
13. Daniluk P, Mazur N, Swierblewski M, Chand M, Diana M, Polom K (2022) Fluorescence Imaging in Colorectal Surgery: An Updated Review and Future Trends. *Surg Innov*:15533506211072678
14. Chevallay M, Gialamas E, Giudicelli G, Vuagniaux A, Guarino L, Worreth M, Saillant S, Diana M, Saadi A (2022) Is an Early Resumption of a Regular Diet After Laparoscopic Roux-en-Y Gastric Bypass Safe? *Obes Surg*
15. Barberio M, Lapergola A, Benedicenti S, Mita M, Barbieri V, Rubichi F, Altamura A, Giaracuni G, Tamburini E, Diana M, Pizzicannella M, Viola MG (2022) Intraoperative bowel perfusion quantification with hyperspectral imaging: a guidance tool for precision colorectal surgery. *Surg Endosc*
16. Al-Taher M, Okamoto N, Mutter D, Stassen LPS, Marescaux J, Diana M, Dallemagne B (2022) International survey among surgeons on laparoscopic right hemicolectomy: the gap between guidelines and reality. *Surg Endosc* 36:5840-5853
17. Wakabayashi T, Barberio M, Urade T, Pop R, Seyller E, Pizzicannella M, Mascagni P, Charles AL, Abe Y, Geny B, Baiocchini A, Kitagawa Y, Marescaux J, Felli E, Diana M (2021) Intraoperative Perfusion Assessment in Enhanced Reality Using Quantitative Optical Imaging: An Experimental Study in a Pancreatic Partial Ischemia Model. *Diagnostics (Basel)* 11
18. Spota A, Al-Taher M, Felli E, Morales Conde S, Dal Dosso I, Moretto G, Spinoglio G, Baiocchi G, Vilallonga R, Impellizzeri H, Martin-Martin GP, Casali L, Franzini C, Silvestri M, de Manzini N, Castagnola M, Filauro M, Cosola D, Copaescu C, Garbarino GM, Pesce A, Calabro M, de Nardi P, Anania G, Carus T, Boni L, Patane A, Santi C, Saadi A, Rollo A, Chautems R, Noguera J, Grosek J, D'Ambrosio G, Ferreira CM, Norcic G, Navarra G, Riva P, Quaresima S, Paganini A, Rosso N, De Paolis P, Balla A, Sauvain MO, Gialamas E, Bianchi G, La Greca G, Castoro C, Picchetto A, Franchello A, Tartamella L, Juvan R, Ioannidis O, Kosir JA, Bertani E, Stassen L, Marescaux J, Diana M (2021) Fluorescence-based bowel anastomosis

- perfusion evaluation: results from the IHU-IRCAD-EAES EURO-FIGS registry. *Surg Endosc* 35:7142-7153
19. Schmidt MW, Haney CM, Kowalewski KF, Bintintan VV, Abu Hilal M, Arezzo A, Bahra M, Besselink MG, Biebl M, Boni L, Diana M, Egberts JH, Fischer L, Francis N, Hashimoto DA, Perez D, Schijven M, Schmelzle M, Soltes M, Swanstrom L, Welsch T, Muller-Stich BP, Nickel F (2021) Development and validity evidence of an objective structured assessment of technical skills score for minimally invasive linear-stapled, hand-sewn intestinal anastomoses: the A-OSATS score. *Surg Endosc*
 20. Polom J, Kalinowski L, Diana M, Chand M, Caballero C, Sawicki S, Polom K (2021) Comprehensive Review of Fluorescence Applications in Gynecology. *J Clin Med* 10
 21. Piccolo G, Barabino M, Diana M, Lo Menzo E, Epifani AG, Lecchi F, Santambrogio R, Opocher E (2021) Application of Indocyanine Green Fluorescence as an Adjuvant to Laparoscopic Ultrasound in Minimally Invasive Liver Resection. *J Laparoendosc Adv Surg Tech A* 31:517-523
 22. Pesce A, Piccolo G, Lecchi F, Fabbri N, Diana M, Feo CV (2021) Fluorescent cholangiography: An up-to-date overview twelve years after the first clinical application. *World J Gastroenterol* 27:5989-6003
 23. Li WF, Al-Taher M, Yu CY, Liu YW, Liu YY, Marescaux J, Cheng YF, Diana M, Wang CC (2021) Super-Selective Intra-Arterial Indocyanine Green Administration for Near-Infrared Fluorescence-Based Positive Staining of Hepatic Segmentation: A Feasibility Study. *Surg Innov*:1553350621996972
 24. Jansen-Winkeln B, Germann I, Kohler H, Mehdorn M, Maktabi M, Sucher R, Barberio M, Chalopin C, Diana M, Moulla Y, Gockel I (2021) Comparison of hyperspectral imaging and fluorescence angiography for the determination of the transection margin in colorectal resections-a comparative study. *Int J Colorectal Dis* 36:283-291
 25. Jansen-Winkeln B, Barberio M, Chalopin C, Schierle K, Diana M, Kohler H, Gockel I, Maktabi M (2021) Feedforward Artificial Neural Network-Based Colorectal Cancer Detection Using Hyperspectral Imaging: A Step towards Automatic Optical Biopsy. *Cancers (Basel)* 13
 26. Ishizawa T, McCulloch P, Muehrcke D, Carus T, Wiesel O, Dapri G, Schneider-Koriath S, Wexner SD, Abu-Gazala M, Boni L, Cassinotti E, Sabbagh C, Cahill R, Ris F, Carvello M, Spinelli A, Vibert E, Terasawa M, Takao M, Hasegawa K, Schols RM, Pruijboom T, Murai Y, Matano F, Bouvet M, Diana M, Kokudo N, Dip F, White K, Rosenthal RJ (2021) Assessing the development status of intraoperative fluorescence imaging for perfusion assessments, using the IDEAL framework. *BMJ Surg Interv Health Technol* 3:e000088
 27. Gockel I, Barberio M, Diana M, Thieme R, Pfahl A, Sucher R, Kohler H, Chalopin C, Maktabi M, Jansen-Winkeln B (2021) [New intraoperative fluorescence-based and spectroscopic imaging techniques in visceral medicine - precision surgery in the "high tech"-operating room]. *Z Gastroenterol* 59:683-690

28. Gimenez ME, Garcia Vazquez A, Davrieux CF, Verde JM, Serra E, Palermo M, Houghton EJ, Dallemagne B, Perretta S, Acquafresca PA, Diana M, Marescaux J (2021) Image-Guided Surgical Training in Percutaneous Hepatobiliary Procedures: Development of a Realistic and Meaningful Bile Duct Dilatation Porcine Model. *J Laparoendosc Adv Surg Tech A* 31:790-795
29. Forgione A, Guraya SY, Diana M, Marescaux J (2021) Intraoperative and postoperative complications in colorectal procedures: the role of continuous updating in medicine. *Minerva Surg* 76:350-371
30. Forgione A, Barberio M, Agnus V, Swanstrom L, Marescaux J, Diana M, Gallix B (2021) Precision image-guided colonic surgery: proof of concept for enhanced preoperative and intraoperative vascular imaging. *Surg Endosc* 35:962-970
31. Felli E, Ishizawa T, Cherkaoui Z, Diana M, Tripon S, Baumert TF, Schuster C, Pessaux P (2021) Laparoscopic anatomical liver resection for malignancies using positive or negative staining technique with intraoperative indocyanine green-fluorescence imaging. *HPB (Oxford)* 23:1647-1655
32. Felli E, Felli E, Muttillio EM, Memeo R, Giannelli V, Colasanti M, Pellicelli A, Diana M, Ettore GM (2021) Liver transplantation for sickle cell disease: a systematic review. *HPB (Oxford)* 23:994-999
33. Felli E, Felli E, Muttillio EM, Memeo R, Giannelli V, Colasanti M, Pellicelli A, Diana M, Ettore GM (2021) RE: re: manuscript titled, "Liver transplantation for sickle cell disease: a systematic review". *HPB (Oxford)* 23:1136
34. Felli E, Al-Taher M, Collins T, Nkusi R, Felli E, Baiocchini A, Lindner V, Vincent C, Barberio M, Geny B, Ettore GM, Hostettler A, Mutter D, Gioux S, Schuster C, Marescaux J, Gracia-Sancho J, Diana M (2021) Automatic Liver Viability Scoring with Deep Learning and Hyperspectral Imaging. *Diagnostics (Basel)* 11
35. De Landro M, Felli E, Collins T, Nkusi R, Baiocchini A, Barberio M, Orrico A, Pizzicannella M, Hostettler A, Diana M, Saccomandi P (2021) Prediction of In Vivo Laser-Induced Thermal Damage with Hyperspectral Imaging Using Deep Learning. *Sensors (Basel)* 21
36. De Landro M, Espiritu Garcia-Molina I, Barberio M, Felli E, Agnus V, Pizzicannella M, Diana M, Zappa E, Saccomandi P (2021) Hyperspectral Imagery for Assessing Laser-Induced Thermal State Change in Liver. *Sensors (Basel)* 21
37. Curtin N, Wu D, Cahill R, Sarkar A, Aonghusa PM, Zhuk S, Barberio M, Al-Taher M, Marescaux J, Diana M, O'Shea DF (2021) Dual Color Imaging from a Single BF2-Azadipyromethene Fluorophore Demonstrated in vivo for Lymph Node Identification. *Int J Med Sci* 18:1541-1553
38. Collins T, Maktabi M, Barberio M, Bencteux V, Jansen-Winkel B, Chalopin C, Marescaux J, Hostettler A, Diana M, Gockel I (2021) Automatic Recognition of Colon

- and Esophagogastric Cancer with Machine Learning and Hyperspectral Imaging. *Diagnostics* (Basel) 11
39. Cinelli L, Felli E, Muttillio EM, Fiorentini G, Diana M, Pessaux P, Felli E (2021) Prepancreatic common hepatic artery arising from superior mesenteric artery: an exceptional but important finding during pancreaticoduodenectomy. *Surg Radiol Anat* 43:1413-1420
 40. Cinelli L, Felli E, Baratelli L, Segaud S, Baiocchini A, Okamoto N, Rodriguez-Luna MR, Elmore U, Rosati R, Partelli S, Marescaux J, Gioux S, Diana M (2021) Single Snapshot Imaging of Optical Properties (SSOP) for Perfusion Assessment during Gastric Conduit Creation for Esophagectomy: An Experimental Study on Pigs. *Cancers* (Basel) 13
 41. Barberio M, Collins T, Bencteux V, Nkusi R, Felli E, Viola MG, Marescaux J, Hostettler A, Diana M (2021) Deep Learning Analysis of In Vivo Hyperspectral Images for Automated Intraoperative Nerve Detection. *Diagnostics* (Basel) 11
 42. Barberio M, Benedicenti S, Pizzicannella M, Felli E, Collins T, Jansen-Winkel B, Marescaux J, Viola MG, Diana M (2021) Intraoperative Guidance Using Hyperspectral Imaging: A Review for Surgeons. *Diagnostics* (Basel) 11
 43. Barberio M, Al-Taher M, Felli E, Ashoka AH, Marescaux J, Klymchenko A, Diana M (2021) Intraoperative ureter identification with a novel fluorescent catheter. *Sci Rep* 11:4501
 44. Al-Taher M, Pruijboom T, Schols RM, Okamoto N, Bouvy ND, Stassen LPS, van der Hulst R, Kugler M, Hostettler A, Noll E, Marescaux J, Diemunsch S, Diana M (2021) Influence of intraoperative vasopressor use on indocyanine green fluorescence angiography: first evaluation in an experimental model. *Sci Rep* 11:9650
 45. Watanabe R, Otsuji A, Nakamura Y, Higuchi T, Takahashi A, Saito T, Enomoto T, Quero G, Diana M, Dallemagne B, Marescaux J, Saida Y, Kusachi S (2020) Superior outcomes (but at higher costs) of non-operative management with interval appendectomy over immediate surgery in appendicitis with abscess: Results from a large adult population cohort. *Asian J Endosc Surg* 13:186-194
 46. Watanabe R, Barberio M, Kanaji S, Lapergola A, Ashoka AH, Andreiuk B, Guerriero L, Pizzicannella M, Seeliger B, Saida Y, Kaneko H, Worreth M, Saadi A, Marescaux J, Klymchenko AS, Diana M (2020) Hybrid fluorescent magnetic gastrojejunostomy: an experimental feasibility study in the porcine model and human cadaver. *Surg Endosc* 34:1393-1400
 47. Vix M, Rodriguez M, Ignat M, Marescaux J, Diana M, Mutter D (2020) Postoperative Remote Monitoring with a Transcutaneous Biosensing Patch: Preliminary Evaluation of Data Collection. *Surg Innov* 27:320-327
 48. Urade T, Felli E, Barberio M, Al-Taher M, Felli E, Goffin L, Agnus V, Ettorre GM, Marescaux J, Mutter D, Diana M (2020) Hyperspectral enhanced reality (HYPER) for anatomical liver resection. *Surg Endosc*

49. Seeliger B, Walz MK, Alesina PF, Agnus V, Pop R, Barberio M, Saadi A, Worreth M, Marescaux J, Diana M (2020) Fluorescence-enabled assessment of adrenal gland localization and perfusion in posterior retroperitoneoscopic adrenal surgery in a preclinical model. *Surg Endosc* 34:1401-1411
50. Seeliger B, Alesina PF, Walz MK, Pop R, Charles AL, Geny B, Messaddeq N, Kontogeorgos G, Mascagni P, Seyller E, Marescaux J, Agnus V, Diana M (2020) Intraoperative imaging for remnant viability assessment in bilateral posterior retroperitoneoscopic partial adrenalectomy in an experimental model. *Br J Surg* 107:1780-1790
51. Seeliger B, Agnus V, Mascagni P, Barberio M, Longo F, Lapergola A, Mutter D, Klymchenko AS, Chand M, Marescaux J, Diana M (2020) Simultaneous computer-assisted assessment of mucosal and serosal perfusion in a model of segmental colonic ischemia. *Surg Endosc* 34:4818-4827
52. Quero G, Lapergola A, Soler L, Shahbaz M, Hostettler A, Collins T, Marescaux J, Mutter D, Diana M, Pessaux P (2020) Erratum. *Surg Oncol Clin N Am* 29:xi
53. Picchetto A, Diana M, Swanstrom LL, Magliocca FM, Pronio A, Choppin E, Rocca S, Marescaux J, D'Ambrosio G (2020) Upstaging nodal status in colorectal cancer using ex vivo fluorescence sentinel lymph node mapping: preliminary results. *Minim Invasive Ther Allied Technol*:1-7
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Book chapters

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Real-time assessment of intestinal perfusion by Fluorescence-based Enhanced Reality.
Chapter 31 in: *Concepts and Applications of Fluorescence Imaging for Surgeons*. Editors Fernando Dip, Takeaki Ishizawa, Norihiro Kokudo, Raoul Rosenthal. Publisher: Springer International Publishing Switzerland 2015
2. Michele Diana, Jacques Marescaux.
New technology in thyroid and parathyroid surgery in *Textbook of Endocrine Surgery* 3rd Edition. Editors Orlo H. Clark and Quan-Yang Duh
3. Michele Diana, Silvana Perretta.
Laparoscopic and Single-Incision Sleeve Gastrectomy. Chapter 29 in: *Mastery of Endoscopic and Laparoscopic Surgery* 4th Edition. Editors Nathaniel Soper and Lee Swanstrom. Publisher: Wolters Kluwer Health: Lippincott Williams and Wilkins 2014.
4. Joel Leroy, Michele Diana, James Wall, Jacques Marescaux.
NOTES® applications in colorectal surgery. In *Atlas Textbook in NOTES®* by R Zorron & J Marescaux
5. Michel Vix, James Wall, Michele Diana, Jacques Marescaux.
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6. Bernard Dallemagne, Silvana Perretta, Michele Diana.
Transgastric Access in *Scar-Less Surgery, NOTES, Transumbilical, and Others* by Rane, A.; Cadeddu, J.A.; Desai, M.M.; Gill, I.S. (Eds.) 2012, 2012, XIV
7. Jacques Marescaux, Michele Diana
Robotic applications in Gastro Intestinal Surgery in *Robotic Surgery: applications and advances* by Duc Le Hong Chapter n3 Publisher Future Medicine 2013
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Robotic and remote surgery what's next? In *Robotics in General Surgery* by Keith Chae Kim (Ed); chapter n37; pp 479-484; Publisher Springer Science + Business Media New York 2014
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10. Michele Diana, Jacques Marescaux
Image Fusion, Virtual Reality and Hybrid Imaging in HPB surgery - Landmark or fashion? Chapter in Hepato-Pancreato-Biliary and Transplant Surgery: Practical Management of Dilemmas. Editor Mariano Gimenez (2018, in Press)
11. Michele Diana, Stéphane Nicolau, Luc Soler, Jacques Marescaux
Augmented Reality. Chapter in Operative Endoscopic and Minimally Invasive Surgery. Editors Daniel B. Jones and Steven D. Schwartzberg. Nova Tech Set (2018, in Press)
12. Yu-Yin Liu, Michele Diana
Hepatic Segmentation using Positive Fluorescent Staining via Intra-hepatic Artery Indocyanine Green Injection. In : Case Series on the use of Fluorescence Imaging in Surgical Practice (2020). International Society of Fluorescence Imaging Guided Surgery (ISFGS)

Grants as Primary Investigator

2020

- Project acronym: **VIDI-VICI**

Project title: Visualisation and quantification of the effects of surgical humidification on intestinal perfusion and viability in an acute porcine model

Funding source: Fisher & Paykel

Budget: **78k Euros**

Objective: to visualise and quantify the effects of warmed surgical humidification on the viability and perfusion of the intestine by means of Hyperspectral imaging on a macroscopic and microscopic level.

2018

- Project acronym: **LiverSURG**

Project title: Quantitative Optical Imaging for Liver Surgery

Funding source: Agence Nationale de la Recherche (ANR) <https://anr.fr/Project-ANR-18-CE19-0026>

Coordinator: Prof Michel De Mathelin (ICube Lab, Strasbourg)

Co-PI: Prof. Eric Vibert (Hôpital Paul Brousse, Paris)

Budget: **490k Euros**

Objective: To develop and validate novel acquisition and processing methods to perform multispectral imaging in real-time during preclinical and clinical liver surgery.

2017

- Project acronym: **NICE**

Project title: Near Infrared Coating of Equipment

Funding source: Conectus Alsace SATT (Society to Accelerate Tech Transfer) <https://www.conectus.fr/nice>

Co-PI: Dr. Andrey Klymchenko (Faculty of Chemistry, Strasbourg)

Budget: **370k Euros**

Objective: to develop a new method of fluorescent coating of surgical tools as a complementary brick to the technologies allowing the practice of Fluorescence-guided surgery. Functional coatings that contain bright near-infrared (NIR) fluorophores are promising for a number of applications

- Project acronym: **GAMMA³**

Project title: Gastrointestinal Activity Manipulation to Modulate Appetite & Aliment Absorption

Funding source: French Government “Investments for the Future”. IHU-Strasbourg, Institute of Image-Guided Surgery

Co-PI: Pr. Lee Swannstrom (Chief Innovation Officer, IHU-Strasbourg)

Budget: **300k Euros**

Objective: The objective of GAMMA is to put forward a new minimally invasive treatment of obesity, with a proprietary technology. The study hypothesizes that tunable mechanical stimulation of gastric pacing regions, obtained through an endoscopic submucosal implant of piezoelectric vibrating device, could interfere with the natural gastrointestinal (GI) motility and cause a hormonally based satiety response, regulating appetite and nutrient intake/absorption. Motility modulation could also reduce gastric emptying, contributing to a

satiety effect on the patient. Since the implants should be precisely placed depending on where the receptors causing this effect are present in the patient, this personalized treatment could greatly enhance the success rates as well as the efficacy of present therapies

2016

- Project acronym: **ELIOS**

Project title: Endoscopic Luminescent Imaging for precision Oncologic Surgery

Funding source: Fondation ARC pour la Recherche contre le Cancer

<https://www.fondation-arc.org/ihu-strasbourg>

Budget: **880k Euros**

Objective: the focus of the ELIOS project is on optimizing radical removal of cancer and reducing surgical complications by means of optical imaging applied to surgery of the digestive and endocrine system. ELIOS is articulated on multiple working packages:

WP1 Clinical: human feasibility studies involving the analysis of the impact of FIGS to counteract the most important challenges in the surgical management of gastro-intestinal cancers. Those challenges include reduction of complications (e.g. anastomotic leaks); improvement of diagnosis, staging and radical removal of cancer. WP2

Preclinical/Experimental: benchmark and test in the animal models innovative optical devices, innovative fluorophores and fluorescence guided techniques. WP3 Software: develop software solutions, including machine and deep learning approaches, to overcome some current limitations, including the need of standardization of the signal analysis enabling reproducibility and comparisons of the data. WP4 Education: promoting education around FIGS through organization of masterclasses endorsed by scholar societies, including the EAES and the International Society of Fluorescence-Guided Surgery (ISFGS), which has been co-founded by the PI (Dr. Michele Diana). WP5 Euro-Figs Patient Registry: This working package aims at compiling safety and efficacy data and sharing experience and setting-up collaborations at the European level on clinical applications of fluorescence-guided surgery. The European Association of Endoscopic Surgeons (EAES) endorses the EURO-FIGS registry.

- Project acronym: **GAMMA³**

Project title: Gastrointestinal Activity Manipulation to Modulate Appetite & Aliment Absorption

Funding source: European Association of Endoscopic Surgeons (EAES)

Co-PI: Pr. Lee Swanson (Chief Innovation Officer, IHU-Strasbourg)

Budget: **35k Euros**

Objective: The objective of GAMMA is to put forward a new minimally invasive treatment of obesity, with a proprietary technology based on tunable mechanical stimulation of gastric pacing regions. This grant helped to achieve several preclinical proofs of the concept in the animal model.

2015

- Project acronym: **IHU-SPECTRA**

Project title: Innovation HUB for Shining Perioperative Endoscopic TheRAnostics

Funding source: IHU-Strasbourg, Institute of Image-Guided Surgery

Budget: **110k Euros**

Objective: to create a new multilevel research unit within the IHU-Strasbourg, Institute of Image-Guided Surgery, fully dedicated to the assessment, development and implementation

of technologies related to optical imaging applied to surgery, as well as at the optimization of the use of current devices and fluorophores.

Project acronym: **HAMMER**

Project title: Healing Anastomosis through Manipulation of Mitochondrial rEspiration Rate

Funding source: Fisher & Paykel

Budget: **30k Euros**

Objective: to evaluate the impact of localized humidified-warmed CO2 laminar insufflation to boost digestive anastomotic healing on a rodent model of bowel anastomosis.

2014

- Project acronym: **EMBARGOES**

Project title: EMBolisation of ARterial Gastrointestinal supply in Obesity and mEtabolic Syndrome

Funding source: IHU-Strasbourg, Institute of Image-Guided Surgery

Budget: **50k Euros**

Objective: to test the effects of the embolization of the GASTRODUODENAL artery on glucose metabolism, GI hormones profile and gene expression of crucial receptors and carriers.

2013

- Project acronym: **GAMMA (Proof of concept)**

Project title: Gastrointestinal Activity Manipulation to Modulate Appetite & Aliment Absorption

Funding source: IHU-Strasbourg, Institute of Image-Guided Surgery

Co-PI: Pr. Lee Swanstrom (Chief Innovation Officer, IHU-Strasbourg)

Budget: **50k Euros**

Objective: evaluate the feasibility of an innovative minimally invasive treatment of obesity, with a proprietary technology based on tunable mechanical stimulation of gastric pacing regions.

- Project acronym: **EMBARGO**

Project title: EMBolisation of ARterial Gastrointestinal supply in Obesity

Funding source: IHU-Strasbourg, Institute of Image-Guided Surgery

Budget: **50k Euros**

Objective: to evaluate, in an experimental animal study, an endovascular approach targeting arteries of the gastroepiploic arcade aiming to modulate ghrelin levels and to generate an increased vascular supply of the GEJ to reduce the risks of staple-line leaks after Sleeve Gastrectomy.

- Project acronym: **FLER**

Project title: Fluorescence-based Enhanced Reality

Funding source: Karl Storz

Budget: **30k Euros**

Objective: to develop and validate an innovative and proprietary software-based solution to quantify and display the fluorescence signal during minimally-invasive surgery. The FLER project was the topic of my Ph.D Thesis.

2011

- Project acronym: **MA3S**

Project title: Modular Auto Assembling Anastomotic System

Funding source: IRCAD

Budget: 35k Euros (+100k for IP protection)

Objective: to develop and validate an innovative and proprietary system for minimally-invasive magnetic compression-based anastomosis. The invention is covered by several patents, including Modular magnetic devices for use in creating tissue anastomosis. US Patent 10,568,630 & Applicators for modular magnetic anastomosis device. US Patent 10,682,143

- Project acronym: **TEO vs EEA**

Project title: Prospective experimental study of transrectal viscerotomy closure using transanal endoscopic suture vs. circular stapler: a step toward NOTES

Funding source: IRCAD

Budget: 25k Euros

Objective: to compare manual suture using the transanal endoscopic operation platform (TEO) with the end-to-end anastomosis hemorrhoid circular stapler (EEA) for closure of the rectal viscerotomy during transrectal NOTES segmental colectomy.

Grants as Co-Investigator

- 1) Co-investigator of the project « QuantSURG » proposal ID 715737 ERC-2016-STG
ERC Starting Grant obtained by Professor Sylvain Gioux (I-CUBE, Strasbourg)
Funding source: European Research Council
Amount: 1,8M Euros
- 2) Co-investigator of the project « Hybrid Material for Fighting Obesity » in collaboration with Professor Luisa de Cola (ISIS, Strasbourg) and Professor Silvana Perretta (IRCAD, Strasbourg)
Funding source: USIAS (University of Strasbourg Institute for Advanced Study)
Amount: 140K Euros
- 3) Co-investigator of the project « LASER OPTIMAL » (grant agreement n. 759159)
ERC Starting Grant obtained by Professor Paola Saccomandi (IHU-Strasbourg and Politecnico di Milano)
Funding source: European Research Council
Amount: 1,2M Euros
- 4) Co-investigator of the project DISRUMPERE “Democratization of automatic diagnosis, screening, biometrics & augmented percutaneous surgery assisted by Artificial Intelligence”, obtained by the “Surgical Data Science” Team of IRCAD.
Duration: 40 months (2020-2024)
Amount: 4,8M Euros
- 5) Local (University of Strasbourg) Scientific Responsible of a *Marie Skłodowska-Curie* Innovative Training Network (H2020):
Project Acronym: **CAST**
Project Title: Active monitoring of cancer as an alternative to surgery

Amount: 274K Euros (2 PhD * 3 years)

- 6) Local (University of Strasbourg) Scientific Responsible of a *Marie Skłodowska-Curie* Research and Innovation Staff Exchange (H2020):
Project Acronym: PRISAR2
Project Title: Proactive monitoring of cancer as an alternative to surgery
Amount: 55K Euros (1 PhD * 3 years)

- 7) Primary supervisor of the WP2 of a *Marie Skłodowska-Curie* Innovative Training Network (H2020):
Project Acronym: CONcISE
Project Title: COmputatioNal Imaging as a training Network for Smart biomedical dEVICES
WP2 aims: 1) To investigate smart acquisition and processing methods for quantitative and real-time fluorescence imaging based on spatial and temporal modulation of light. 2) To design and fabricate a general-purpose platform for testing novel & advanced fluorescence imaging methods. 3) To design and fabricate a clinically-compatible endoscopic implementation for advanced fluorescence imaging. 4) To validate methods and imaging systems during phantoms & pre-clinical experiments
Amount: 270K Euros

Other awards

- Prize of the British Journal of Surgery 2020
- Best Presentation Award at the SICE 2019, Ancona, Italy (30 Sept-2 Oct 2019)
- Best Investigator Award at the iSMIT 2018, Seoul, South Korea (7-10 November 2018)
- Best Presentation Award at the iSMIT 2018, Seoul, South Korea (7-10 November 2018)
- Finalist as best medical abstract at the IEEE International Conference on Robotics and Automation ICRA 2011, Shanghai, China (9-13 mai 2011)
- UEGW travel grant 2014 (Vienna)
- Best innovation paper award EAES 2013 (Vienna)
- UEGW travel grant 2011 (Stockholm)
- EECMID travel grant 2011 (Milan)

Teaching and Mentoring

Teaching activity

Teaching represents a large part of my activity. I contribute to several courses delivered to residents in surgery and in anaesthesia at the University of Strasbourg and I organize journal clubs on surgical innovation. In the framework of my affiliation with the Physiology Department (EA3072, Mitochondria and Oxidative Stress, University of Strasbourg, Director Prof Geny Bernard), I take part in the:

- Surgical physiology module for the Anaesthesia residency

(Diplome d'Etudes Spécialisés, DES), directed by Prof Pierre Diemunsch, with the following topics:

- The physiology of pneumoperitoneum
- Mesenteric ischemia
- Bariatric surgery techniques and complications
- Respiration in Anaesthesia and ICU: from Airway Management to Cellular Respiration

Additionally, I give classes in the framework of the

- University Diploma (DU) in Laparoscopic Surgery (University of Strasbourg).
- Interuniversity Diploma (DIU) in Robotic Digestive Surgery (Universities of Nancy, Strasbourg & Montpellier).

Faculty member during courses in Minimally-Invasive Surgery.

This activity includes **podium presentations** on topics relevant to surgical techniques and technologies and **hands-on** teaching of minimally-invasive surgical techniques.

1. Faculty at the mini-pig surgery Course for the French license to animal experimentation (IRCAD/EITS, Strasbourg, 26-28 April 2010)
2. Faculty at the Natural Orifices Transluminal Endoscopic Surgery course (IRCAD/EITS, Strasbourg, 28-29 may 2010)
3. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg, 5-9 July 2010)
4. Faculty at the Metabolic Surgery Course (IRCAD/EITS, Strasbourg, 17-18 September 2010)
5. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg, 20-25 September 2010)
6. Faculty at the Natural Orifices Transluminal Endoscopic Surgery course (IRCAD/EITS, Strasbourg, 1-2 Oct 2010)
7. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg, 7-11 February 2011)

8. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg, 7-11 March 2011)
9. Faculty at the Laparoscopic Digestive Surgery Course (IRCAD/EITS, Strasbourg 14-16 April 2011)
10. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg 16-20 May 2011)
11. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 27-28 May 2011)
12. Faculty at the Laparoscopic General Surgery Course (IRCAD/EITS, Strasbourg 4-8 July 2011)
13. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 19-23 Sep 2011)
14. Faculty at the mini-pig surgery Course for the French license to animal experimentation (IRCAD/EITS, Strasbourg, 26 Sep 2011)
15. Faculty at the Advanced Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 31 Oct-3 Nov 2011)
16. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 14-16 Nov 2011)
17. Faculty at the General Surgery Course (IRCAD/EITS, Strasbourg 21-25 Nov 2011)
18. Faculty at the Metabolic Surgery Course (IRCAD/EITS, Strasbourg 6-7 Dec 2011)
19. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 13-17 Feb 2012)
20. Faculty at the Metabolic Surgery Course (IRCAD/AITS, **Taiwan**, 23-24 Feb 2012)
21. Faculty at the Advanced Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 13-16 Mar 2012)
22. Faculty at the surgery Course for scrub nurses (IRCAD/EITS, Strasbourg 19 Mar 2012)
23. Faculty at the mini-pig surgery Course for the French licence to animal experimentation (IRCAD/EITS, Strasbourg, 16-18 April 2012)
24. Faculty at the Advanced Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 19-21 April 2012)
25. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 21-25 May 2012)
26. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 1-2 June 2012)
27. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 24-26 September 2012)
28. Faculty at the Laparoscopic Surgery and New Technology Course (IRCAD-EITS, Strasbourg 15 October 2012)
29. Faculty at the Advanced Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 25-26 October 2012)
30. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 16-17 November 2012)
31. Faculty at the Metabolic Surgery Course (IRCAD/EITS, Strasbourg 7-8 December 2012)

32. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 4-8 February 2013)
33. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 11-15 March 2013)
34. Faculty at the Hepatobiliary Surgery Course (IRCAD/EITS, Strasbourg 4-6 April 2013)
35. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 13-17 May 2013)
36. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 7-8 June 2013)
37. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, August 2013)
38. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 22-26 September 2013)
39. Faculty at the surgery Course for scrub nurses (IRCAD/EITS, Strasbourg 14 October 2013)
40. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg Nov 2013)
41. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 24-28 January 2014)
42. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 12-16 may 2014)
43. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD/EITS, Strasbourg 11-13 June 2014)
44. Faculty at the Masterclass in Hepatobiliary Surgery (IHU-Strasbourg 16-18 June 2014)
45. Faculty at the Hepatobiliary Surgery Course (IRCAD/EITS Strasbourg 19-20 June 2014)
46. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS Strasbourg 30th June- 4th July 2014)
47. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, 7-12 July 2014)
48. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 15-19 September 2014)
49. Faculty at the Digestive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 22-25 October 2014)
50. Faculty at the Masterclass in Hepatobiliary Surgery (IHU-Strasbourg 1-3 December 2014)
51. Faculty at the Bariatric Surgery Course (IRCAD, Strasbourg 4-6 December 2014)
52. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD, Strasbourg 13-15 November 2014)
53. Faculty at the Laparoscopic General Surgery Intensive Course (IRCAD, Strasbourg 17-21 November 2014)
54. Faculty at the University Diploma of Robotic Surgery (Nancy, 28 November 2014)
55. Faculty at the Laparoscopic General Surgery Intensive Course (IRCAD, Strasbourg, 26-30 January 2015)
56. Faculty at the University Diploma of Robotic Surgery (Strasbourg IHU, 19 March 2015)

57. Faculty at the Laparoscopic General Surgery Intensive Course (IRCAD, Strasbourg 18-22 mai 2015)
58. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD, Strasbourg, 18-19 june 2015)
59. Faculty at the Laparoscopic General Surgery Intensive Course (IRCAD, Strasbourg 29 june-3 july 2015)
60. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, August 2015)
61. Faculty at the Laparoscopic General Surgery Intensive Course (IRCAD, Strasbourg 21-25 September 2015)
62. Faculty at the Hands-on Anesthesiology and Reanimation Course (IRCAD, Strasbourg, 25-26 September 2015)
63. Faculty at the Laparoscopic Digestive Surgery Course (IRCAD, Strasbourg 15-17 October 2015)
64. Faculty at the Masterclass in Hepatobiliary Surgery (IHU-Strasbourg 29-30 October 2015)
65. Faculty at the Laparoscopic Colorectal Surgery Course (IRCAD-EITS, Strasbourg 6-7 November 2015)
66. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD-EITS, Strasbourg 16-20 Novembre 2015)
67. Faculty at the University Diploma of Robotic Surgery (Nancy, 2015)
68. Faculty at the Master 2 in Surgical Sciences Technology Innovations (Paris, Kremlin Bicêtre, 16.03.2016)
69. Faculty at the mini-pig surgery Course for the French license to animal experimentation (IRCAD/EITS Strasbourg, April 2016)
70. Faculty at the Colorectal Surgery Course (IRCAD/EITS, Strasbourg 18-21 May 2016)
71. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 23-27 May 2016)
72. Faculty at the Masterclass in Hepatobiliary Surgery (IHU-Strasbourg 20-22 May 2016)
73. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 4-7 July 2016)
74. Faculty at the University Diploma in Surgical Endoscopy (IHU-Strasbourg 11-13 July 2016)
75. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, August 2016)
76. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg 12-16 September 2016)
77. Faculty at the Hepatobiliary Surgery Course (IRCAD/EITS, Strasbourg 21-24 September 2016)
78. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 14-18 November 2016)
79. Faculty at the Bariatric Surgery Course (IRCAD, Strasbourg 2-3 December 2016)
80. Faculty at the Colorectal Surgery Course (IRCAD/EITS, Strasbourg 15-16 December 2016)

81. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 23-27 January 2017)
82. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 15-19 May 2017)
83. Faculty at the Gynaecology course (oncology) (IRCAD/EITS, Strasbourg, 24 May 2017)
84. Faculty at the Colorectal surgery course (IRCAD/EITS, Strasbourg, 1-3 June 2017)
85. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 3-7 July 2017)
86. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, August 2017)
87. Faculty at the University Diploma in Surgical Endoscopy (IHU-Strasbourg, 11-13 September 2017)
88. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 18-22 September 2017)
89. Faculty at the Colorectal surgery course (IRCAD/EITS, Strasbourg, 2-4 November 2017)
90. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 13-17 November 2017)
91. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 29 January- 2 February 2018)
92. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD/EITS, Strasbourg, 14-18 May 2018)
93. Faculty at the Colorectal Surgery Course (IRCAD/EITS, Strasbourg, 24-26 May 2018)
94. Faculty at the Intensive Laparoscopic Surgery Course (IRCAD-EITS, Strasbourg, 2-6 July 2018)
95. Faculty at the University Diploma in Surgical Endoscopy (IRCAD-EITS, Strasbourg, 9-11 July 2018)
96. Faculty at the BEST (Business Engineering Surgical Technology) Course (IRCAD, Strasbourg, August 2018)
97. Faculty at the Laparoscopic Hernia Course (IRCAD-EITS, Strasbourg, 20-21 Sept 2018)
98. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 24-26 Sept 2018)
99. Faculty at the course Sentinel Lymph Node in Breast Cancer: from tradition to innovation (organized by the ELSAN group, IRCAD, Strasbourg, 20 Oct 2018)
100. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 12-16 Nov 2018)
101. Faculty at the surgery course for scrub nurses (IRCAD-EITS, Strasbourg 19 Nov 2018)
102. Faculty at the Hepatobiliary Surgery Course (IRCAD-EITS, Strasbourg 12-14 Dec 2018)
103. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 28-31 Jan 2019)
104. Faculty at the surgery course for scrub nurses (IRCAD-EITS, Strasbourg, 11-13 March 2019)

105. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 1-5 July 2019)
106. Faculty at the Hands-on Course on Sentinel Lymph node in Gynaecology Surgery (IRCAD-EITS, Strasbourg, 11-13 July 2019)
107. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 23-27 September 2019)
108. Faculty at the Advanced Digestive Surgery Course (IRCAD-EITS, Strasbourg, 17 October 2019)
109. Faculty at the surgery course for scrub nurses (IRCAD-EITS, Strasbourg, 4-6 November 2019)
110. Faculty at the Colorectal Surgery Course (IRCAD-EITS, Strasbourg, 14-16 November 2019)
111. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 18-20 November 2019)
112. Faculty at the Bariatric Surgery Course (IRCAD-EITS, Strasbourg, 6 December 2019)
113. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 10-14 February 2020)
114. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 14-18 September 2020)
115. Faculty at the Advanced Course in Inguinal, Ventral and Complex Abdominal Wall Reconstruction Surgery (IRCAD-EITS, Strasbourg, 29 October 2020)
116. Faculty at the Masterclass in General Surgery (IRCAD-EITS, Strasbourg, 1-5 February 2021)
117. Faculty at the Masterclass in ROBOTIC & ENDOSCOPIC THYROIDECTOMY & PARATHYROIDECTOMY (IRCAD-EITS, Strasbourg, February 18-19, 2021)
118. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 17-21 May 2021)
119. Faculty at the Colorectal Surgery Course (IRCAD-EITS, Strasbourg, 3-5 June 2021)
120. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 5-9 July 2021)
121. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 20-24th September 2021)
122. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, Jan 31st to Feb 4th 2022)
123. Faculty at the Colorectal Surgery Course (IRCAD-EITS, Strasbourg, 14-18 February 2022)
124. Faculty at the Intensive Laparoscopic Course (IRCAD-EITS, Strasbourg, 4-8 July 2022)

Mentoring activity

Ph.D Thesis (Doctoral School ED414 LIFE & HEALTH of Strasbourg)

PhD student	Years	Role and % of my supervision	Institution
Manuel Barberio Funded via the ELIOS grant (ARC foundation)	2017-2019	Director (100%)	IHU-Strasbourg and University of Strasbourg
Barbara Seeliger Funded via the ELIOS grant (ARC foundation)	2017-2019	Director (100%)	IHU-Strasbourg and University of Strasbourg
Eric Felli Funded via the ELIOS grant (ARC foundation)	2018-2020	Director (100%)	IHU-Strasbourg and University of Strasbourg
Mahdi Al-Taher Partly funded via the ELIOS grant (ARC foundation)	2018-2020	Co-Director (50%)	IHU-Strasbourg, IRCAD and University of <u>Maastricht</u>

Ph.D Thesis (Doctoral School ED MSII of Strasbourg)

PhD student	Years	Role and % of my supervision	Institution
Elisa Bannone Funded via the ELIOS grant (ARC foundation)	2019-2021	Director (50%)	ICube Strasbourg and University of Verona

Rita Rodriguez Funded via a Marie-Curie International Training Network (ITN) action	2020-2023	Director (100%)	IRCAD & ICube
	Thesis title: Active monitoring of cancer as an alternative to surgery (CAST) Defense: TBD		
Nariaki Okamoto Funded via Marie-Curie action + IRCAD + Osaka University	2021-2023	Director (50%) Co-Director (Paul Montgomery)	IRCAD & ICube
	Thesis title: Active monitoring of cancer as an alternative to surgery Defense: TBD		
Guinther Saibro Funded via DISRUMPER E Project	2021-2024	Director (50%) Co-Director (Nicholas Thome)	IRCAD Africa
	Thesis title: DISRUMPERE project Defense: TBD		

MD Thesis

Student's name	Years	Position under my supervision	Institution
Luigi Schiraldi	2015	Surgical Research Fellow	IRCAD, France
	Thesis title: Functional Capillary Density for in Vivo Estimation of Intestinal Perfusion using Real-Time Confocal Endomicroscopy		
Francesco Marchegiani	2015	Surgical Research Fellow	IHU-Strasbourg, France
	Thesis title: Morpho-functional evaluation of perfusion in fluorescence-assisted robotic colorectal surgery		

Master of Science in Biomedical Engineering

Name	Years	Position under my supervision	Institution
Giorgia Vita	2016	Engineering Research Fellow	IHU-Strasbourg, France and Campus Biomedico, Rome
	Thesis title: Thermometry in medical applications: experiments on animal models		
Daniela Lo Presti	2016	Engineering Research Fellow	IHU-Strasbourg, France and Campus Biomedico, Rome
	Thesis title: Design and development of an MRI-compatible textile system for intraoperative monitoring of vital parameters		

Students (Master 2)

Name	Years	Position under my supervision	Institution	Project title
Emilie Seyller	2018-2019	Master 2 Student in Life Science	<ul style="list-style-type: none"> • IHU-Strasbourg • EA3072 Physiology Institute 	Quantitative evaluation of tissue perfusion by hyperspectral imaging
Farid Ouhmich	2016	Master 2 Student in computer science	IRCAD	Development of a software (SELF) enabling a Selective Erasing of Liver Fluorescence.
Faiçal Selka	2014	Post-Doc	IRCAD	Development of a software enabling real-time tracking of the virtual perfusion cartography to evaluate bowel perfusion

Member of the Jury of Ph.D Thesis

1) Computational modeling of radiofrequency ablation for the planning and guidance of abdominal tumor treatment

PhD candidate: **Chloé Audigier**

PhD specialty: Automatic and Analysis of Biomedical Images

Thesis defense on 14th October 2015 at Université Nice Sophia Antipolis

2) Real-time treatment and visualization in spatio-temporal frequency domain to guide the surgical gesture

PhD candidate: **Enagnon Aguenounon**

PhD specialty: Electronics, micro-electronics, photonics

Thesis defense on 25th September 2020 at University of Strasbourg

3) Multispectral optical imaging in real-time for surgery

PhD candidate: **Silvère Segaud**

PhD specialty: Physics and Photonics

Thesis defense on 6th April 2022 at IRCAD, Strasbourg

4) QUANTITATIVE MULTI-MODAL OPTICAL IMAGING FOR SURGERY

President of the jury

PhD candidate: **Luca Baratelli**

PhD specialty: Physics and Photonics

Thesis defense on 6th April 2022 at IRCAD, Strasbourg

Professional Memberships

Active memberships

- **2021** Society of Physicians Entrepreneurs (SoPE)
- **2020** French College of Physicians (Conseil National de l'Ordre des Médecins CNOM du Bas Rhin); member n° 67/12563 (RPPS n° 10102029765)
- **2017 Honorary member** of the Brazilian Society of Oncologic Surgery (SBCO)
- **2016** Value-based Healthcare French Circle
- **2015** Society for Medical Innovation and Technology (ISMIT)
 - Member of the Steering Committee (since 2016)
 - **Co-President iSMIT 2023 Conference at IRCAD TAIWAN**
- **2015** Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)
 - International Member 2
- **2015** European Association of Endoscopic Surgeons (EAES)
 - Member of the Technology Committee
- **2013 Founder member** of the International Society for Fluorescence Guided Surgery (ISFGS)
 - **President Elect 2023**
- **2013** International Society for Computer Aided Surgery (ISCAS)
- **2004** Italian College of Physicians and Surgeons (Ordine dei Medici Chirurghi ed Odontoiatri di Caserta); member n°6087

Past memberships

- **2013-2014** Academy of Surgical Research (ASR)
- **2012-2014** Swiss Society of Biomedical Engineering (SSBE)
- **2010-2014** Association for Academic Surgery and Perioperative Medicine (AASPM)
- **2010-2014** International Society of Surgery (ISS/SIC)
- **2009-2014** Swiss Society of Surgery (SSC)
- **2006-2014** Swiss College of Physicians (Foederatio Medicorum Helveticorum (FMH))
member n°68154

Editorial activities

- Associate Editor and Co-founder of the Journal of Fluorescence-Guided Surgery
- Category Chair World Molecular Imaging Congress
- Subgroup Chair SPIE Photonics
- Member of the Editorial Board of Biophotonics
- Reviewer (publons.com/a/1293028/) for several journals, including:
 - 1) Annals of Surgery
 - 2) Surgical Innovation
 - 3) Surgical Endoscopy
 - 4) Gastroenterology
 - 5) Journal of Pediatric Surgery
 - 6) International Journal of Computer Assisted Radiology and Surgery
 - 7) Future Oncology
 - 8) British Journal of Surgery
 - 9) European Radiology
 - 10) Minimally Invasive Therapy & Allied Technologies
 - 11) European Surgical Research
 - 12) International Journal of Surgery
 - 13) Expert Review of Gastroenterology and Hepatology
 - 14) Journal of Endocrinological Investigation
 - 15) BMJ open
 - 16) Computer Assisted Surgery
 - 17) Diseases of the Colon and Rectum
 - 18) Diseases of the Esophagus
 - 19) Molecular Pharmaceutics
 - 20) Colorectal Disease
 - 21) Journal of Vascular and Interventional Radiology
 - 22) Scientific Reports
 - 23) Langenbeck's Archives of Surgery
 - 24) Journal of Biomedical Optics
 - 25) Journal of Investigative Surgery
 - 26) Lasers in Surgery and Medicine
 - 27) World Journal of Surgical Oncology
 - 28) Journal of Surgical Oncology
 - 29) Journal of the American College of Surgeons
 - 30) Medical Image Analysis
 - 31) Theranostics

Patents

1) Modular Magnetic Anastomotic Device

PCT/US2012/046272

WO 2013/009886 (17.01.2013 Gazette 2013/03)

EP 2 731 511 B1

U.S. Patent Number 10,568,630.

Abstract: The present disclosure provides modular magnetic anastomosis devices that can be implemented in digestive surgery or in any circumstance of anastomosis between adjacent organs or two hollow viscera. The device is minimally invasive and easily and quickly delivered using laparoscopic or endoscopic procedures.

Applicant: IRCAD

Inventors: Juan HERNANDEZ, Michele DIANA, James Kennedy WALL

2) Applicators for Modular Magnetic Anastomotic Device

Publication number: WO 2014102621 A3

Other references of publication: EP2934347A2, US20150342608, WO2014102621A2

Abstract: The present disclosure provides description of applicators to implement modular magnetic anastomosis device. In one embodiment the delivery device is a laparoscopic instrument for MISS surgery, in another embodiment the delivery device is endoscopy or colonoscopy instrument for NOTES surgery

Filed: December 21, 2012

Publication date: April 23, 2015

Applicant: IRCAD

Inventors: Juan HERNANDEZ, Michele DIANA

3) Method and system for detecting leaks and/or verifying adequate closure following a medical procedure

Publication number: 20150272499

Abstract: Method for detecting leaks and/or verifying adequate closure following a medical procedure, on a hollow or tubular organ of a subject, wherein a leak test is performed by injecting or insufflating, in the concerned organ, a specific test gas which is not commonly produced or naturally present within the body of the subject, or which is present or produced in a precisely known amount or concentration, and by analyzing percutaneously the gas or gas mixture present locally within the body cavity in which the organ is situated, and then verifying the presence, and preferably determining the concentration, of the injected or insufflated test gas in the local gas or gas mixture of the body cavity and indicating whether the concerned organ or a lumen defined by the latter is leak-free or not.

Filed: March 25, 2015

Publication date: October 1, 2015

Inventors: Eran SHLOMOVITZ, Lee L. SWANSTROM, Michele DIANA

4) Implantable device to treat obesity

Publication number: [WO2015044422A1](#)

Abstract: An implantable device to treat obesity and a method of using the same, the device (31) is able to create a repetitive mechanical constraint on a gastrointestinal organ wall and includes: an energy source (36), and a mechanical stimulation element (35).

Type: Application

Filed: September 29, 2014

Publication date: August 18, 2016

Inventors: Michele DIANA, Peter HALVAX, Fernand MARTEL, Bruno MUTET, Lee SWANSTROM

5) Fluorescent polymeric coating film for medical devices

Publication number: 18305075.6

Filed: January 26, 2018

Inventors: Andrey KLYMCHENKO, Seong-Ho KONG, Michele DIANA, Renato SOARES

8) Calibration aid for optical imaging applications

Publication n°: EP21306309.2

Filed: September 22, 2021

Inventors: KLYMCHENKO, Michele DIANA, Anila Hoskere ASHOKA

Conferences: invited speaker and/or course director

Date	Conference	Location	Role(s)	Title(s)
June 23 rd , 2022	ESSO	VIRTUAL	Invited Speaker	Hyperspectral Imaging
April 8 th , 2022	ASRCC	Neuchâtel, Switzerland	Keynote Speaker and Chairman	The Augmented Surgeon
April 5 th , 2022	SPIE PHOTONICS EUROPE	Strasbourg, France	Invited Speaker	Surgical optical imaging and Deep Learning towards precision surgery
December, 17, 2021	First meeting of the European Chapter of the International Society of Fluorescence-Guided Surgery (ISFGS)	Milan, Italy	Keynote Speaker	Other optical imaging modalities
December, 11, 2021	42 nd Congress of the Tunisian Association of Surgeons	VIRTUAL	Keynote Speaker	Optical imaging and Artificial Intelligence towards precision surgery
November 24-27, 2021	29 th International Congress of the European Association for Endoscopic Surgery (EAES)	Barcelona, Spain	Chairman & Speaker at the Technology Symposium	Smart Fluorophores and Hyperspectral Imaging
			Speed dating expert	Intraoperative imaging technologies
			Course Director, chairman and speaker at the Masterclass in Fluorescence-Guided Surgery (co-chairmen Prof. Luigi Boni, Prof Steve	The future of fluorescence image-guided surgery is bright

			Wexner, Prof Alberto Arezzo)	
			Panel member	Consensus Conference on Fluorescence-Guided Surgery
			Invited Speaker	The latest insights on imaging
			Invited Speaker	Enhanced Vision: a surgeon's dream becomes reality
November 23 rd , 2021	14 th International NOTES WIDER	Barcelona, Spain	Invited Speaker	Surgical optical imaging towards precision surgery
November 18 th , 2021	1st ESDE/IGCA EU chapter Joint Congress (Milan, San Raffaele University Hospital)	VIRTUAL	Invited speaker	The new eyes of the future
November 15 th , 2021	France Life Imaging (FLI)	VIRTUAL	Invited speaker	Impact of optical imaging in image-guided surgery
September 24 th , 2021	Conference of the Italian Society of Endoscopic Surgery and New Technologies (SICE)	VIRTUAL	Invited speaker	Methods for quantification of the fluorescence signal. Applications and future perspectives.
September 23 rd , 2021	Conference of the Italian Society of Endoscopic Surgery and New Technologies (SICE)	VIRTUAL	Invited speaker	Image-guided Surgery: The augmented eye for precision surgery
September 15 th , 2021	Minimally Invasive Surgery Meeting of Antoine Beclère Hospital	VIRTUAL	Keynote	Towards cybernetic surgery 2
June 25 th 2021	Seoul International Symposium of Surgical Oncology 2021	VIRTUAL	Invited speaker	Surgical optical imaging towards precision surgery
June 23 rd 2021	IEEE MeMeA 2021	VIRTUAL	Keynote speaker	Endoscopic Luminescent Imaging for precision Oncologic Surgery: the ELIOS project
June 10 th 2021	Politecnico di Milano Workshop: TECHNOLOGICAL INNOVATIONS FOR THE	VIRTUAL	Keynote speaker	Precision surgery: advanced technologies in the operating room

	PRECISION MEDICINE OF TOMORROW			
June 5 th 2021	World Congress on Thyroid Cancer 4 (WCTC4 – Virtual) Module 3: The Future of Surgery: IRCAD at the WCTC	VIRTUAL	Keynote speaker	Towards Precision Endocrine Neck Surgery with Optical Imaging and Deep Learning
May 7 th 2021	IRCAD WEBINAR. MIS left pancreatectomy: technical approaches	VIRTUAL	Invited speaker	The role of intraoperative optical imaging in pancreatic surgery
May 6 th 2021	Fluoreszenzangiographie mit Indocyaningrün (ICG) in der Viszeralchirurgie Web seminar Akademie Light www.ndch-winter.de	VIRTUAL	Keynote speaker	Modern developments and the future of fluorescence
April 13 th 2021	H2020-MSCA-RISE-2019 GA number: 872860 (Proactive Monitoring of Cancer as an Alternative to Surgery) Webinar on analytical methods and development of probes	VIRTUAL	Invited speaker	Devices design and Analysis
March 13 th 2021	Inter University Diploma (Sorbonne and Paris-Est Créteil) on Minimally-Invasive and robotic techniques in oncologic digestive surgery	VIRTUAL	Invited speaker	Advances in Optical Imaging applied to Hepatobiliary Surgery
March 4 th 2021	Sentinel Lymph Node in Gynaecologic Surgery (Masterclass organized by the University of Strasbourg)	VIRTUAL	Keynote speaker	The future of fluorescence guided surgery
February 23 rd , 2021	ENDODUBAI 2021	VIRTUAL	Keynote speaker	Updates on fluorescence imaging

February 4 th 2021	XL MEETING ON "WHAT IS NEW IN MINIMALLY INVASIVE SURGERY". SPANISH ASSOCIATION OF SURGERY (AEC) (Dr Salvador Morales-Conde)	VIRTUAL	Invited speaker	The future of fluorescence imaging
December, 12 th 2020	Use of Fluorescence Surgery online course; Centro Médico-Cirurgico Minimamente Invasivo (Portugal)	VIRTUAL	Invited speaker	Intraoperative fluorescence imaging in hepatobiliary surgery
December, 1 st 2020	Italian Chapter of the American College of Surgeons	VIRTUAL	Invited speaker	Artificial Intelligence in colorectal surgery
November, 27 th 2020	ICG Guided Surgery " hands-on workshop, held at Ponderas Academic Hospital, Bucharest, Romania,	VIRTUAL	Keynote	Intraoperative fluorescence imaging in hepatobiliary surgery
October, 24 th 2020	13 th Conference of the Portuguese Society of Minimally Invasive Surgery	VIRTUAL	Keynote	Will the machines take over surgery? How machine learning is changing the surgical landscape
February 15 th -16 th , 2020	7th International Conference on Fluorescence Guided Surgery (during the 16 th Foregut Symposium of Cleveland Clinic)	Coral Gables, Florida, USA	Invited speaker and Chairman	1) The future of fluorescence imaging
				2) Fluorescence vs. Hyperspectral imaging in perfusion and tissue discrimination
January 23-25, 2020	EAES Wintermeeting	Krakow, Poland	Invited Speaker	Intraoperative Optical Imaging
January 16-17, 2020	Meeting of the SOFFCO (French and French-speaking Society of Obesity Surgery)	Lausanne, Switzerland	Invited Speaker	Bariatric Embolization of the Gastroepiploic Arcade
December 14 th , 2019	Meeting of the Italian Association of Hospital Surgeons (ACOI) : Technique	Verona, Italy	Invited Speaker	The Indocyanine Green

	and Technology in Minimally-Invasive Colorectal Surgery			
December 13 th , 2019	The Future of Colorectal Surgery Symposium	London, United Kingdom	Invited Speaker (broadcasted live via the AIS channel)	The Future of NIR-guided Surgery – SMART DYES
December 2-5, 2019	European Colorectal Congress (ECC)	St Gallen, Switzerland	Invited Speaker	Artificial Intelligence in Colorectal Surgery
November 25-26, 2019	12 th International NOTES WIDER	Barcelona, Spain	Invited Speaker	Near-Infrared Coating of Equipment: the NICE project Hyperspectral imaging in digestive surgery
November 22, 2019	XVII annual meeting of AIMUT (Italian Multidisciplinary Academy for Territorial Urology).	Pescara, Italy	Keynote	Human-machine collaboration in surgery
October 18-19, 2019	12 th Conference of the Portuguese Society of Minimally Invasive Surgery	Coimbra, Portugal	Keynote	The real robot
			Invited Speaker & session chairman	A new software to quantify the ICG signal during the evaluation of bowel perfusion
October 11, 2019	International Society for Medical Innovation and Technology (iSMIT) 31st meeting	Heilbronn, Germany	Invited Speaker	Hybrid is the Key: OR, procedures and navigation
			Session Chairman	Image-guided surgery, imaging, navigation
October 2, 2019	The 9 th Aslla Symposium: Molecular Guided Optical Theranostics 2030 (Korean Institute of Science and Technology)	Gangneung, South Korea	Invited Speaker	The ELIOS project: Endoscopic Luminescent Imaging for precision Oncologic Surgery
October 1, 2019	Lecture to students in Biomedical Engineering at Pusan National University	Busan, South Korea	Keynote	Towards cybernetic surgery
		Sousse, Tunisia	Keynote	Innovations in colorectal surgery

September 20-21, 2019	3 rd Conference of the Tunisian Association of Colorectal Surgery			Artificial Intelligence in colorectal surgery
				Percutaneous surgery of liver metastases from colorectal cancer
July 11-12, 2019	10 th Conference of the French-Lebanese Medical Association	Beirut, Lebanon	Keynote	Cybernetic Surgery
June 28 th , 2019	Meeting: Indocyanine green - myth or reality?	Lisbon, Portugal	Keynote	Indocyanine Green and biliary anatomy
				Indocyanine Green applicability in hepatic surgery
				Prospects for the future
June 12-15, 2019	27 th International Congress of the European Association for Endoscopic Surgery (EAES)	Sevilla, Spain	Chairman	VR, AR and 3D printing in surgery
			Speed dating expert	Technology Symposium Imaging Technologies
June 8 th , 2019	Minimally Invasive Surgery Meeting of Antoine Beclère Hospital	Paris, France	Keynote	Towards cybernetic surgery
April 12 th , 2019	ESSO Course on Fluorescence-Guided Surgery	Leiden, Netherlands	Invited Speaker	How I do it: imaging of tissue perfusion
March 8 th , 2019	Emerging Technologies in Surgery: when, how and why to invest in them 7 th CTC (Surgical Conference of Trentino Alto Adige)	Trento, Italy	Invited Speaker	Smart Hybrid OR for precision therapies
March 6 th , 2019	Lecture to Medical Students organized by the Surgical Department of the University of Verona	Verona, Italy	Keynote	Cybernetics and Precision Surgery
March 5 th , 2019	Lecture organized by the Surgical Department of the University of Chieti, Fondazione Villa Serena,	Pescara, Italy	Keynote	Cybernetics and Precision Surgery

February 16th, 2019	6th International Conference on Fluorescence Guided Surgery (during the 15 th Foregut Symposium of Cleveland Clinic)	Fort Lauderdale, Florida, USA	Invited speaker and Chairman	Potential of fusion between intraoperative fluorescence imaging and Virtual Reality and Augmented Reality
February 7-8, 2019	EAES Winter meeting (combined with the 38 th course of the Spanish Surgeons Association for continuous education in Minimally Invasive Surgery)	Sevilla, Spain	Keynote and invited speaker	Computer-assisted analysis of the ICG signal
				Results from the European Registry on Fluorescence-Guided Surgery
				How technology reshaped treatment: cholecystectomy
December, 3-5, 2018	European Colorectal Congress	St. Gallen, Switzerland	Keynote Speaker (opening lecture)	The future of surgery: sailing on the waves of innovation
November 26-27, 2018	12 th International NOTES WIDER	Barcelona, Spain	Invited Speaker	Image-guided Surgery: innovating the surgeon's eye towards surgical precision
November 8-10, 2018	International Society for Medical Innovation and Technology (iSMIT) 30 th meeting	Seoul, South Korea	Invited Speaker & Chairman	Smart hybrid OR for precision therapies
October 25-27, 2018	18 th MMESA Congress (Mediterranean and Middle Eastern Endoscopic Surgery Association)	Reims, France	Keynote Speaker	Augmented Reality & Surgery
October 11, 2018	French days of Diagnostic and Interventional Radiology organized by France Life Imaging (FLI)	Paris, France	Invited Speaker	Near-Infrared Intraoperative Imaging: state of the art and future perspectives
September 29, 2018	10 th SERGS Annual Meeting on Robotic Gynecological Surgery	Milan, Italy	Invited Speaker	Augmented Reality in surgery
September 27, 2018	International Workshop. Intraoperative ICG fluorescence Imaging in Abdominal Surgery:	Milan, Italy	Keynote Speaker	When teaching surgical technology sets the example worldwide. Insights from IRCAD

	Prevention of Complications and Oncological Perspectives			
September 21, 2018	The ERAS protocol and the minimally-invasive and robotic surgery. III Workshop	Bari, Italy	Keynote Speaker	Clinical applications of fluorescence imaging in digestive surgery
September 13-15 th , 2018	13 th International Single Topic Symposium (ISTS)	Yeosu, South Korea	Keynote Speaker	Image-Guided Surgery: the augmented eye towards surgical precision
June 22 nd , 2018	E-MRS Spring Meeting 2018 Symposium E “Nanotechnology for targeted personalized medicines and theranostics”	Strasbourg, France	Keynote speaker	Fluorescence-guided Surgery: the cybernetic eye to see the invisible
June 8 th , 2018	Coloproctologia 3.0	Lazise (Verona), Italy	Keynote speaker	Endoscopic Luminescent Imaging for precision Oncologic Surgery: the ELIOS project
May 30 th to June 1 st , 2018	26 th International Congress of the European Association for Endoscopic Surgery (EAES)	London, UK	Course Director of the Masterclass in Fluorescence-Guided Surgery (co-director Prof. Luigi Boni)	The IRCAD-IHU-EAES EURO-FIGS registry: 1-year activity
			Keynote speaker	Smart Hybrid Operating Room for precision therapies
			Chairman	What’s new in technology?
			Chairman	Intraoperative Imaging
			Panel	Consensus on 3D imaging technology in minimally-invasive surgery
May 24 th , 2018	PRESS RELEASE : Dernières Nouvelles d’Alsace	Strasbourg, France	Invited keynote speaker	Endoscopic Luminescent Imaging for precision Oncologic Surgery: the ELIOS project
May 18 th , 2018	14 ^o Congresso Brasileiro de Videocirurgia (SOBRACIL)	Curitiba, Brasil	Invited keynote speaker	Technology leveraged innovations to reduce complications in colorectal surgery

April 20 th , 2018	26 th symposium of the ASRCC (Association Suisse Romande de Chirurgie Coelioscopique)	Lausanne, Switzerland	Invited keynote speaker	New surgical developments: towards the bio-artificial surgeon
April 11-14, 2018	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Seattle, USA	Invited Speaker (Faculty)	Bariatric Embolization: an emerging weight loss procedure
April 7 th , 2018	Japanese Society of Fluorescence Guided Surgery, during the 118 th Annual Congress of Japan Surgical Society	Tokyo, Japan	Invited Keynote Speaker	Computer-assisted enhanced reality assessment of the fluorescence signal to estimate bowel perfusion
April 6 th , 2018	Beyond Gynecology Surgery	Clermont Ferrand, France	Invited Keynote Speaker	The 21st century OR from endoscopy to functional MRI and fluorescence
February 15, 2018	5th International Conference on Fluorescence Guided Surgery (during the 15 th Foregut Symposium of Cleveland Clinic)	Fort Lauderdale, Florida, USA	Invited speaker and Chairman	Quantification of the fluorescence signal applied to anastomotic perfusion
January 26 th , 2018	PERITONEAL CARCINOMATOSIS: STATE OF THE ART AND FUTURE PROSPECTS	Rome, Italy	Invited Keynote Speaker	Endoscopic Luminescent Imaging for precision Oncologic Surgery: the ELIOS project
December 2 nd , 2017	Seoul International Gastric Cancer Forum	Seoul, South Korea	Invited Keynote Speaker	Endoscopic Luminescent Imaging for precision Oncologic Surgery: the ELIOS project
November 27-28, 2017	11 th International NOTES W.I.D.E.R.	Barcelona, Spain	Invited Keynote Speaker	1) Intraoperative imaging: the augmented eye for precision surgery 2) Endoluminal triangulation 2.0: development of a robotically assisted surgical endoscopic platform

November 23-25, 2017	9 th Conference of the Romanian Association of Endoscopic Surgery	Bucharest, Romania	Invited Keynote Speaker	Fluorescence-guided Surgery: the cybernetic eye to see the invisible
November 9-10, 2017	29 th iSMIT (International Society of Medical Innovation and Technology) conference	Turin, Italy	Chairman	Innovations in endoscopic surgery
October 27, 2017	Brazilian Congress of Cancer Surgery	Rio de Janeiro, Brazil	Invited Keynote Speaker	Fluorescence-guided Surgery: the cybernetic eye to see the invisible
October 21, 2017	International Workshop on Fluorescence-guided Imaging	Brescia, Italy	Invited Keynote Speaker	Fluorescence Imaging: state of the art and future perspectives
October 12-14, 2017	10 th Conference of the Portuguese Society of Minimally Invasive Surgery	Lisbon, Portugal	Invited Keynote Speaker	1. Imaging and MIS: no surprises for the future 2. Robotic Interventional Radiology
June 14-17, 2017	25 th International Congress of the European Association of Endoscopic Surgery (EAES)	Frankfurt, Germany	Course Director of the Masterclass in Fluorescence-Guided Surgery (co-chairs Professor Luigi Boni and Professor Abe Fingerhut)	Future developments of fluorescence angiography
			Chairman of the session on imaging	Virtual Reality and Augmented Reality: a step beyond
May 24-26, 2017	12 th biennial European-African Hepato-Pancreato-Biliary Association Congress 2017	Mainz, Germany	Invited speaker	Prospective evaluation of precision multimodal gallbladder surgery navigation: virtual reality, near-infrared fluorescence, and X-ray-based intraoperative cholangiography
April 27-28, 2017	25 th symposium of the ASRCC	Geneva, Switzerland	Invited keynote speaker	What's new for the future?

April 7, 2017	17 th National Conference of the Italian Association of Biomedical Engineers	Genova, Italy	Invited keynote speaker	The future of surgery, the experience of Strasbourg
February 15, 2017	4th International Conference on Fluorescence Guided Surgery (during the 15 th Foregut Symposium of Cleveland Clinic)	Fort Lauderdale, Florida, USA	Invited speaker and Chairman	1. Cartography and Digital Documentation of Fluorescent Imaging 2. Clinical translation of the computer-based perfusion assessment
February 1-3, 2017	EAES winter-meeting and EURO-NOTES symposium	Frankfurt, Germany	Invited speaker	New perspectives in endoscopic imaging
December 6-9, 2016	Surgical Humidification Research Symposium	Auckland, New Zealand	Invited speaker	1. Intraoperative hypothermia and CO ₂ insufflation in Minimally-Invasive Surgery 2. Impact of intra-abdominal flow of humidified and warmed carbon dioxide (CO ₂) on the healing of colorectal anastomosis 3. Looking at the future of surgery with the augmented eye
November 21-22, 2016	10 th International NOTES W.I.D.E.R 2016 course	Barcelona, Spain	Invited keynote speaker	Fluorescence-Guided Surgery Basic knowledge and potential developments
November 9-12, 2016	World Congress of Endoscopic Surgery (WECS)	Shanghai, China	Invited keynote speaker	1) "Fluorescence-guided surgery: The cybernetic eye for precision surgery" 2) When will Artificial Intelligence replace the surgeon's brain?

				3) Towards the end of hepatic surgery with the rise of minimally-invasive image-guided therapies.
November 7-10, 2016	XXXI National Conference of the Spanish Surgical Association	Madrid, Spain	Invited keynote speaker	To see or not to see: this is the question. 3D, UHD, Augmented Reality, ICG.
September 28, 2016	118 th Conference of the French Association of Surgery (AFC)	Paris, France	Invited speaker	Fluorescence-guided surgery: The cybernetic eye for precision surgery
September 8-9, 2016	16th Conference of the Sociedad Iberico-Americana de Intervencionismo (SIDI)	Zaragoza, Spain	Keynote speaker	Bariatric embolization
June 15-18, 2016	24 th International Congress of the European Association of Endoscopic Surgery (EAES)	Amsterdam, The Netherlands	Invited speaker, chairman and organizer of the session on FLUORESCENCE-GUIDED SURGERY	Presentation of the EURO-FIGS REGISTRY (A web-based registry powered by the IHU-SPECTRA unit) dedicated to the collection of patients operated using Fluorescence guidance across Europe.
June 13, 2016	Conference on “Simulation in the training of medical professions”.	University “Gabriele D’Annunzio”, Chieti, Italy	Invited keynote speaker	The Cybersurgery
June 3-5, 2016	Innovation Club of the French Association of Hepatobiliary Pancreatic Surgery and Transplantation: “Open brain and fresh air in surgery”	Carnac, France	Invited speaker	The use of light in surgery
February 14, 2016	SPIE PHOTONICS	Moscone Center San Francisco, USA	Invited Speaker and Chairman of the BIOS session	Fluorescence-based Enhanced Reality to assess bowel perfusion
February 8, 2016	Surgical Horizons Seminar Series	Harvard Medical School, Boston, Massachusetts, USA	Invited speaker	Perspectives on Surgical Guidance Using Near-Infrared Light

February 4, 2016	3rd International Conference on Fluorescence Guided Surgery (during the 15 th Foregut Symposium of Cleveland Clinic)	Boca Raton, Florida, USA	Invited speaker	1. Why should we use near-infrared guidance? 2. Alternative routes of administration of Indocyanine Green
October 5, 2015	Conference of the Italian Society of Colorectal Surgery	Treviso, Italy	Keynote speaker	Next steps in minimally invasive surgery: hybrid image-guided surgery
September 18, 2015	iMed 7.0	Lisbon, Portugal	Keynote speaker	The future of Surgery
June 11, 2015	Meeting of the Ukrainian Society of Surgical Oncology	Kiev, Ukraine	Keynote speaker	Hybrid navigation in surgery
February 14-16, 2015	2nd International Conference on Fluorescence Guided Surgery (during the 14 th Foregut Symposium of Cleveland Clinic)	Coral Gables Miami, Florida, USA	Invited speaker	1) Fluorescence enhanced reality to assess anastomotic perfusion 2) Fluorescence-based augmented reality Intra-operative Cholangiography: PRELIMINARY results of a prospective Clinical Trial
February 15-16, 2014	First World Conference on Fluorescence Guided Surgery (during the 13 th Foregut Symposium of Cleveland Clinic)	Coral Gables Miami Florida, USA	Invited speaker and founder member of the International Society of Fluorescence-Guided Surgery	Fluorescence enhanced reality evaluation of bowel perfusion
27-29 September, 2012	<u>Austrian Single Incision Symposium</u>	Salzburg, Austria	Keynote speaker	Technical Innovations in Minimally Invasive Surgery

Conferences: paper presentations (podium and poster)

Date	Conference	Location	Role	Presentation title
May 18 th , 2022	CAST annual meeting	Stockholm, Sweden	Co-Author	Feasibility of EMI-137 topical application in detecting rectal cancer cells during fluorescence-guided endoscopy (Presenter: Rita Rodriguez)
October 5 th , 2020	American College of Surgeons	VIRTUAL MEETING	Co-Author	Precision image-guided colonic surgery: proof of concept for enhanced preoperative and intraoperative vascular imaging (Presenter: Antonello Forgione)
August 11 th , 2020	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	VIRTUAL MEETING	Senior Author	Hyperspectral-based enhanced reality to guide liver resection (Presenter: Eric Felli; PhD student) Emerging Technology Session
January 16-17, 2020	Meeting of the SOFFCO (French and French-speaking Society of Obesity Surgery)	Lausanne, Switzerland	Co-Author (Podium)	A score to predict internal hernia after bariatric surgery (Presenter: Dr Guillaume Giudicelli)
October 11, 2019	International Society for Medical Innovation and Technology (iSMIT) 31st meeting	Heilbronn, Germany	Senior Author (Oral and poster)	Hyperspectral imaging of liver ischemia in a porcine model: a proof of concept (Presenter: Eric Felli; PhD student)
Sept 30-Oct 1, 2019	XIX National Congress of the Italian Society of Endoscopic Surgery (SICE)	Ancona, Italy	Co-Author (Podium)	Nodal re-staging in ColoRectal Cancer with ex-vivo near-infrared fluorescence lymph node mapping (Presenter: Dr. Andrea Picchetto) BEST PRESENTATION AWARD
July, 23-27, 2019	41 st Engineering in Medicine and Biology (EMB) Conference	Berlin, Germany	Senior Author (Podium)	Hyperspectral imaging for thermal effect monitoring in <i>in vivo</i> liver during laser ablation (Presenter: Dr. Martina De Landro)

June 12-15, 2019	27 th International Congress of the European Association for Endoscopic Surgery (EAES)	Sevilla, Spain	Senior Author (podium)	FLuorescence-based Enhanced Reality vs. Hyperspectral Imaging to assess bowel perfusion (Presenter: Dr. Manuel Barberio)
				Anticipating the automated intraoperative tissue recognition: intraoperative tissue classification using hyperspectral imaging and machine learning (Presenter: Dr. Manuel Barberio)
				Near-infrared coating of equipment (NICE) to aid intraoperative catheter identification – a preclinical testing of novel fluorescent coatings (Presenter: Dr. Barbara Seeliger)
				Fluorescence-enabled assessment of adrenal gland localization and perfusion in posterior retroperitoneoscopic adrenal surgery in a preclinical model (Presenter: Dr. Barbara Seeliger).
May 15-17, 2019	106 th Annual Congress of the Swiss Society of Surgery	Berne, Switzerland	Senior Author (podium)	Assessment of remnant viability in posterior retroperitoneoscopic partial adrenalectomy in a preclinical model (Presenter: Dr. Barbara Seeliger) BEST PAPER AWARD AND BJS PRIZE
			Senior Author (podium)	Simultaneous computer-assisted assessment of mucosal and serosal perfusion in a model of segmental colonic ischemia (Presenter: Dr. Barbara Seeliger)
			Co-Author (Podium)	Impact of training a bariatric surgeon on a primary bariatric center (Presenter: Dr. Benjamin Blaser)
			Co-Author (Podium)	Development and validation of a prediction model for internal hernia after Roux en Y gastric bypass (Presenter: Dr. Guillaume Giudicelli)

May 23-25, 2019	SOFFCO-MM SOciété Française et Francophone de Chirurgie de l'Obésité et des Maladies Métaboliques	Lille, France	Co-Author (poster)	Diagnostic and therapeutic challenges of late dumping syndrome (Presenter: Dr. Chrysoula Papastathi)
May 24 th , 2019	Update on oncologic abdominal surgery	Rome, Italy (Accademia Lancisiana)	Senior Author (podium)	Hyperspectral imaging of pig liver ischemia: a proof of concept (Presenter: Dr. Eric Felli)
November 8-10, 2018	International Society for Medical Innovation and Technology (iSMIT) 2018 meeting	Seoul, South Korea	Senior Author (podium)	1) Simultaneous computer-assisted assessment of mucosal and serosal perfusion in a model of segmental colonic ischemia (Presenter: Dr. Barbara Seeliger)
				2) HYPER: HYPerspectral based Enhanced Reality to evaluate bowel perfusion (Presenter: Dr. Manuel Barberio: BEST PRESENTATION AWARD)
May 30 th to June 1 st , 2018	26 th International Congress of the European Association for Endoscopic Surgery (EAES)	London, UK	Co-Author (podium)	Predictability of Near-Infrared Fluorescence light sentinel lymph node mapping for colorectal cancer staging (Presenter: Dr. Andrea Picchetto)
May 9-11, 2018	Association of Surgeons of Great Britain and Ireland	Liverpool, UK	Co-Author (podium)	Computer-assisted analysis of ICG fluorescence signal for evaluation of small intestinal anastomotic perfusion. A randomised, blinded, experimental trial (Presenter: Dr Kristina Gosvig)
April 11-14, 2018	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Seattle, USA	Co-Author (poster)	Preclinical Testing of Novel "Off-On" Fluorescent compound for Dual Wavelength Near-Infrared Imaging Using Commercially Available Instrumentation (Presenter: Prof Ronan Cahill)

			Senior Author (podium)	Discrimination between arterial vs. venous ischemia by computer assisted analysis of the fluorescent signal (Presenter: Dr. Giuseppe Quero)
			Co-Author (poster)	Laser-based intrabiliary ablation: first in vivo experience (Presenter: Dr. Ludovica Guerriero)
			Senior Author (poster)	Modular laser-based endoluminal ablation of early cancers: in vivo dose-effect evaluation and predictive numerical modelling (Presenter: Dr. Giuseppe Quero)
June 14-17, 2017	25 th International Congress of the European Association of Endoscopic Surgery (EAES)	Frankfurt, Germany	Presenter, first author (EAES Research grant)	Gastrointestinal Activity Manipulation to Modulate Alimnt Absorption and Appetite
			Presenter, first author	Gastrointestinal hormones manipulation to counteract metabolic syndrome using duodenal artery targeted embolization
			Co-Author, AMAZING TECHNOLOGY SESSION	Stable fluorescent implants for gastrointestinal tattooing (Presenter: Dr Manuel Barberio)
May 4-6, 2017	European Surgical Association meeting	Bucarest, Romania	Presenter, First author (podium)	Prospective evaluation of precision multimodal gallbladder surgery navigation: virtual reality, near-infrared fluorescence, and X-ray-based intraoperative cholangiography
June 15-18, 2016	24 th International Congress of the European Association of Endoscopic Surgery (EAES)	Amsterdam, The Netherlands	Presenter, First author (podium)	Precision real-time evaluation of bowel perfusion. Accuracy of confocal endomicroscopy assessment of stoma in a controlled hemorrhagic shock model
			Presenter, First author (podium)	Impact of valve-less vs. standard insufflation on pneumoperitoneum volume, inflammation and peritoneal physiology in a laparoscopic sigmoid resection experimental model

			Presenter, co-author (podium)	Precision computer-assisted Barrett Esophagus follow-up. Relocalization of previous biopsy sites with electromagnetic tracking and time-machine patient-specific video archive
			Co-author (podium)	Augmented Reality computer-assisted navigation in hybrid interventional therapies: transparency visualization of patient-specific virtual organs motion during breathing using real-time skin tracking (Presenter: Alexandre Hostettler Ph.D)
			Co-author (podium)	3D MRI Topography of the Nerves at Risk during Pelvic Visceral Surgery (Presenter: Arthur Wijsmuller, MD)
March 16-18, 2016	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Boston, MA, USA	First author (podium)	Superselective intra-arterial hepatic injection of Indocyanine Green (ICG) for fluorescence image-guided segmental positive staining: experimental proof of the concept (Presenter: Yu-Yin Liu, MD)
March 16-18, 2016	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Boston, MA, USA	Co-Author (podium)	Robust Augmented Reality registration method for Localization of Solid Organs' Tumors Using CT-derived Virtual Biomechanical Model and Fluorescent Fiducials (Presenter: Seong-Ho Kong, MD, Ph.D)
June 3-6, 2015	23rd International Congress of the European Association of Endoscopic Surgery (EAES)	Bucharest, Romania	First author (podium)	In-vivo Immunohistochemistry: tissue-specific fluorescent probes for real-time sentinel node evaluation using confocal endomicroscopy.
				Novel laparoscopic narrow-banding imaging for real-time detection of bile leak during hepatectomies. Proof of the concept in a porcine model.

April 15-18, 2015	Annual meeting of the Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Nashville, Tennessee, USA	First author (podium)	Emerging Technology Session: High Intensity Focused Ultrasound (HIFU) for submucosal gastrointestinal tissue ablation
18-22 October 2014	United European Gastroenterology Week (UEGW)	Vienna, Austria	First author (podium)	Esophageal covered stent fixation using an endoscopic Over-the-scope clip. Mechanical proof of the concept and first clinical experience
18-21 September 2014	Academy for Surgical Research	Minneapolis, USA	First author (podium)	Improving echo-guided procedures using a 4D Ultrasound with image-fusion system
June 2014	European Association of Endoscopic Surgeons (EAES)	Paris, France	Co-Author (podium)	1) Endoscopic full-thickness suturing with an endoscopic suturing device on porcine sigmoid colon (Presenter: Peter Halvax MD) 2) Endoluminal full-thickness suture repair of gastrotomy: a survival study (Presenter: Peter Halvax MD)
April 2-5, 2014	Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Salt Lake City, Utah, USA	First author (podium)	Real-time navigation by Fluorescence-based Enhanced Reality for precise estimation of future anastomotic site in digestive surgery
April 2-5, 2014	Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Salt Lake City, Utah, USA	First author (poster)	Probe-based confocal laser endomicroscopy and fluorescence-based enhanced reality for real-time estimation of intestinal microcirculation in a porcine model of sigmoid ischemia
26-29 June, 2013	Computer Assisted Radiology and Surgery (CARS)	Heidelberg, Germany	Co-author and co-presenter (podium)	Automated Augmented Reality for Laparoscopic Surgery (Co-presenter, Stephane Nicolau PhD)
19-22 June, 2013	European Association for Endoscopic Surgery (EAES)	Vienna, Austria	Presenter (podium)	1) Endoluminal surgical triangulation: overcoming challenges of colonic endoscopic submucosal dissections using a novel flexible endoscopic surgical platform. Feasibility study in a porcine model (with video)

				<p>2) Iron metabolism after Roux-en-Y Gastric Bypass or Sleeve Gastrectomy. Results from a prospective randomized clinical trial.</p> <p>3) A modular magnetic anastomotic device for minimally invasive digestive anastomosis. Proof of the concept and preliminary data in the porcine model.</p> <p>4) Impact of Roux-en-Y Gastric Bypass vs. Sleeve Gastrectomy on Vitamin D metabolism. Short term results from a prospective randomized clinical trial.</p>
19-22 June, 2013	European Association for Endoscopic Surgery (EAES)	Vienna, Austria	Co-Author (podium)	<p>Feasibility and reliability of pancreatic cancer staging using a new confocal microscopy probe: a double blinded study in rats (Presenter: Vivian <u>De Ruijter</u>)</p> <p>BEST INNOVATION PAPER AWARD</p>
12 June, 2013	Swiss Society of Surgery annual meeting	Berne, Switzerland	First author (podium)	Instant capillary lactates to evaluate bowel ischemia: proof of the concept in a porcine model
May 5 –8, 2013	International Anaesthesia Research Society (IARS)	San Diego, CA, USA	First author (poster and oral)	<p>1) Oxygraphic assessment of mitochondria respiratory rate kinetics in a porcine model of small bowel ischemia</p> <p>2) Instant capillary lactates to evaluate bowel ischemia: proof of concept in a porcine model</p>
April 16 –20, 2013	Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	Baltimore, MD, USA	Co-Author (podium)	1) Age influence on weight loss and glycol-lipid profile after laparoscopic sleeve gastrectomy: experience with 308 consecutive patients (Presenter: Yoshi Nagao MD, PhD)

				2) Revisional surgery after failed Adjustable Gastric Banding: Institutional experience with 90 consecutive cases (presenter Keng-Hao LIU)
October 20-24, 2012	United European Gastroenterology Week (UEGW)	Amsterdam, The Netherlands	Co-Author (podium)	A novel steerable grasper to facilitate Gastric Endoscopic Submucosal Dissection (ESD): a randomized comparative study in a porcine model (presenter hyunsoo Chung mD)
27-28 August, 2012	Swiss Society of Biomedical Engineering Annual meeting (SSBE)	Lausanne, Federal Polytechnic School, Switzerland (EPFL)	First author (podium and poster)	Fluorescence based Augmented Reality to assess intestinal perfusion
March 7 – 10, 2012	Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	San Diego, CA, USA	Co-author (podium)	1) Management of staple line leaks after sleeve gastrectomy in a consecutive series of 378 patients (presenter Michel Vix) 2) Globalization of Undergraduate Surgical Education: a Unique Educational Experience at the IRCAD France (Presenter Vivian de rujiter)
7-10 May 2011	21 st EECMID	Milan, Italy	Presenter (poster)	The surgeon as an independent risk factor for Surgical Site Infections
20-25 October, 2011	United European Gastroenterology Week (UEGW)	Stockholm, Sweden	Presenter (podium)	1) Transrectal viscerotomy closure using transanal endoscopic suture vs. circular stapler: a step toward NOTES® 2) MAGNAMOSIS IV: magnetic compression anastomosis for minimally invasive colorectal surgery
May 2011	IEEE International Conference on Robotics and Automation (ICRA 2011)	Shanghai, China	Co-author	GyroLock – First In Vivo Experiments of Active Heart Stabilization Using Control Moment Gyro (CMG) Presenter J. Gagne

March 30 - April 2, 2011	Society of American Gastrointestinal Endoscopic Surgeons (SAGES)	San Antonio, TX	Co-author	Prospective evaluation of peritoneal fluid contamination following transabdominal vs. transanal specimen extraction in laparoscopic left- sided colorectal resections (Presenter: Dr Federico Costantino)
13 November, 2010	Surgical Innovations Conference	Bastrop, Texas, USA	First author (podium)	Totally Endoscopic Magnetic Enteral By-pass by External Guided Rendez-vous Technique (Presenter: Dr James Wall)
October 2010	United European Gastroenterology Week (UEGW)	Barcelona, Spain	First author (poster)	Impact of preoperative arterial embolization on anastomotic leakage and overall complications after esophageal resection.
2-4 Sept 2010	Swiss Society of Hospital Hygiene	Lausanne, Switzerland	First author (podium)	The surgeon's impact on surgical site infections in colon surgery. What surgeons (should) do.
May 2010	Swiss Society of Surgery annual meeting	Interlaken, Switzerland	First author (podium)	1) Measures to prevent Surgical Site Infections 2) Impact of preoperative arterial embolization on anastomotic leakage and overall complications after esophageal resection.
November 2003	3 ^o Congress of the European chapter of the American College of nutrition	Gottingen	Co-author (podium)	Prevalence of essential hypertension and metabolic syndrome in "lean" NAFLD patients (Presenter: Luca Miele)