

Joy Y. Balta, PhD, MSc, MA

Education

Ph.D. Human Anatomy, University College Cork, Cork, Ireland Thesis Title: Functional educational characterization of the utility of embalming fluids for anatomical education and research Advisor: John F. Cryan and Siobhain M. O'Mahony	2016
M.A. Teaching and Learning in Higher Education, University College Cork, Ireland	2020
M.Sc. Human Anatomy, University of Dundee, Dundee Scotland	2012
B.S. Life and Earth Sciences (Honors), Lebanese University, Beirut, Lebanon	2009

Academic Appointments

Associate Professor & Founding Director Anatomy Learning Institute, College of Health Sciences, Point Loma Nazarene University, San Diego, California	2022- Present
Associate Professor Biomedical Education & Anatomy, The Ohio State University, Columbus, Ohio	2021- 2022
Faculty Fellow for Instructional Redesign Michael V. Drake Institute for Teaching and Learning, Office of Academic Affairs, The Ohio State University, Columbus, Ohio	2020- 2022
Adjunct Instructor of Anatomy- Online Pasadena City College	2021- Present
Assistant Professor Biomedical Education & Anatomy, The Ohio State University, Columbus, Ohio	2018- 2021

Adjunct Assistant Professor Biomedical Education & Anatomy, The Ohio State University, Columbus, Ohio	2018
Assistant Professor (Lecturer at Irish University Ranking) Anatomy & Neuroscience, University College Cork, Cork, Ireland	2016- 2018
Senior Medical Demonstrator at Irish University Ranking Anatomy & Neuroscience, University College Cork, Cork, Ireland	2013- 2016
Instructor School of Medicine, Lebanese American University, Byblos, Lebanon	2012- 2013

Leadership Positions

Instructional Redesign Initiative Lead Institute for Teaching & Learning, The Ohio State University, Columbus, Ohio	2020- 2022
Director of Labs & Body Donation Program Biomedical Education & Anatomy, The Ohio State University, Columbus, Ohio	2018- 2022
MSc Human Anatomy Program Coordinator Anatomy & Neuroscience, University College Cork, Cork, Ireland	2017- 2018
MSc Human Anatomy Program Development Coordinator Anatomy & Neuroscience, University College Cork, Cork, Ireland	2016- 2017

Other Positions and Employment

Consultant in Surgical Education Victory Healthcare- Institute for BioResearch, Houston, Texas	2013- 2014
Lab Technician in Anatomy & Microbiology School of Medicine, Lebanese American University, Byblos, Lebanon	2009- 2011
Founding President As You Are- Non-Profit Organization, Beirut, Lebanon	2009- 2013

Professional Memberships and Activities

American Association for Anatomy	2013- Present
Co-Chair, Limbs/Trunk Curriculum Review Task Force	2014
Member, Body Donation Policies and Bill HR 1835 Task Force	2019
Chair, Human Body Donor Task Force	2016- Present

Anatomical Society of Great Britain & Ireland	2013- Present
Member, Board of Directors & Trustee	2014- 2016
Member, Website, Media & Communications Committee	2014- 2019
Member, Meetings Committee	2014- 2016
Institute of Anatomical Sciences	2011- Present
Member, Board of Directors	2014 to 2016

Editorial Responsibilities

Anatomical Sciences Education, Reviewer
 Anatomia, Histologia, Embryologia, Reviewer
 Journal of Anatomy, Reviewer
 Medical Teacher, Reviewer
 Frontiers in Veterinary , Reviewer
 Saudi Medical Journal, Reviewer
 Clinical Anatomy, Reviewer

Educational Activities

Educational Administration and Leadership	
Member, Admissions Committee	2016- 2018
Member, Marketing and Recruitment Committee	2016- 2018
Member, Exams Committee	2016- 2018
Program Development Coordinator, Masters in Human Anatomy	2016- 2017
Program Coordinator, Masters in Human Anatomy	2017- 2018
Member, Surgical Education Committee	2019- Present
Member, CIRTL Network Steering Committee	2019- Present
Instructional Redesign on Demand Short Course Series	2021- Present

Teaching Activities

Foundations of Medicine Block, Instructor, 60 students	2012- 2013
Session Titles: Thorax & Mediastinum, Autonomic Nerves System, Abdominal Viscera, Male & Female Pelvis	

Endocrinology & Reproductive Medicine Block, Instructor, 60 students Session Titles: Pancreas & Suprarenal, Male Reproductive System	2012- 2013
Nephrology Block, Instructor, 60 students Session Titles: Anatomy of the Urinary System	2012- 2013
Pulmonary Block, Instructor, 60 students Session Titles: Anatomy of the Lungs & Thoracic cage, Nasal Cavities & Paranasal Sinuses, Root of the Neck	2012- 2013
Gastrointestinal Block, Instructor, 60 students Session Titles: Foregut, Midgut, Hindgut	2012- 2013
Musculoskeletal & Dermatology Block, Instructor, 60 students Session Titles: Leg & Foot, Gluteal Region & Popliteal Fossa, Deep Muscles of the Back, Forearm & Hand	2012- 2013
Neurosciences & Psychiatry Block, Instructor, 60 students Session Titles: Gross Anatomy of the Brain, Spinal Cord, Cranial Nerves	2012- 2013
The Anatomical Basis of Dental Hygiene, Instructor, 40 students Session Titles: Oral Cavity, Nasal Cavity, Trigeminal Nerve, Muscles of Mastication, Floor of the Mouth	2013- 2016
Topographical Anatomy of Dental Practice, Instructor, 90 students Session Titles: Mediastinum, Thorax, Lungs & diaphragm, Overview of the Central Nervous System, Orbit & Eye	2013- 2016
Human Regional Neuroanatomy, Instructor, 25 students Session Titles: Gross Anatomy of the Brain, Cranial Nerves, Limbic System	2013- 2016
Neuroanatomy, Instructor, 10 students Session Titles: Gross Anatomy of the Brain, Cranial Nerves, Limbic System	2013- 2016
Foundations of Medicine- Introductory Human Biology, Instructor, 125 students Session Titles: Anatomical Terminology, Axilla & Brachial Plexus, Arm, Joints, Anterior Forearm & Palm of Hand, Shoulder Region, Upper Limb Joints, Anterior & Medial Thigh, Leg & Foot, Lower Limb Joints	2013- 2016
Foundations of Medicine- Cardiovascular Biology, Instructor, 125 students Session Titles: Overview CVS, External Heart, Internal Heart, Mediastinum, Root of the Neck	2013- 2016

Foundations of Medicine- Respiratory Biology, Instructor, 125 students Session Titles: Nose & Sinus, Pharynx& Larynx, Thoracic Wall, Lungs	2013- 2016
Foundations of Medicine- Gastrointestinal Biology, Instructor, 125 students Session Titles: Oral Cavity & Oropharynx, Parotid & Submandibular Region, Temporal Region & Muscles of Mastication, Anterior Abdominal Wall, Peritoneal Cavity, Liver-Stomach-Gall Bladder, Small & Large Intestine, Coeliac Trunk, Posterior Abdominal Wall, Rectum & Anus	2013- 2016
Foundations of Medicine- Neuroscience, Instructor, 125 students Session Titles: Skull, Meninges & Ventricles, Cranial Nerves, Basal Ganglia, Cerebellum	2013- 2016
Foundations of Medicine- Renal Mechanism, Instructor, 125 students Session Titles: Urinary Tract, Pelvic Wall, Perineum, Male Reproductive System, Female Reproductive System	2013- 2016
Graduate Fundamental of Medicine I, Instructor, 80 students Session Titles: Upper Limb1-2-3-4-5, Lower Limb 1-2-3-4	2013-2016
Graduate Fundamental of Medicine II, Instructor, 80 students Session Titles: Thoracic Cage, Mediastinum & Diaphragm, Pericardium & External Heart, Pelvis & Perineum, Nose, Pharynx	2013-2016
Graduate Fundamental of Medicine III, Instructor, 80 students Session Titles: Stomach- Liver- Gall Bladder, Small & Large Intestine, Abdominal Wall, Oral Cavity, Coeliac Trunk & Viscera	2013-2016
Graduate Fundamental of Medicine IV, Instructor, 80 students Session Titles: Skull, Meninges & Ventricles, Cranial Nerves, Basal Ganglia, Cerebellum	2013-2016
Anatomy of Speech and Hearing, Instructor, 30 students Session Titles: Pharynx and Larynx, Muscles of Facial Expression, Nasal Cavity, Facial Bones	2016
Topographical Anatomy for Physical Therapists, Instructor, 45 students Session Titles: Biomechanics of the Upper Limb, Biomechanics of the Lower limb	2016
Human Gross Anatomy, Coordinator & Instructor, 10 students Session Titles: Lectures & Labs covering the full human body	2017- 2018
Anatomy Pedagogy, Coordinator & Instructor, 10 students Session Titles: Universal Design for Learning, Multiple Intelligences in Anatomy, Curriculum Development, Teaching Session Design	2017- 2018

Graduate Gross Anatomy, Coordinator & Instructor, 10 students Session Titles: Lectures & Labs covering the full human body	2018- Present
Anatomy for General Surgery Residents, Coordinator & Instructor, 40 students Session Titles: General Abdominal Anatomy, Inguinal and Femoral Herniae, Biliary Anatomy & Foregut Mesenteric Vessels, Male & Female Pelvic Anatomy for Low Rectal Surgery, Thorax & Mediastinum, Neck Anatomy, Limb Vasculature/Compartment Release	2018- Present
Clinical Anatomy, Coordinator & Instructor, 10 students Session Titles: Head, Thorax, Abdomen, Back	2018- Present
Ethics & Professionalism in Medicine , Coordinator & Instructor, 210 students Session Titles: Ethics in the Anatomy Laboratory, From the Lab to the Practice of Ethics & Professionalism in Medicine	2019- Present
Super Hero Anatomy, Instructor, 25 students Session Titles: Muscular System of the Human Body	2019- Present
Education Seminar, Instructor, 20 students Session Titles: Universal Design for Learning	2019- Present
IR on Demand, Teaching in Large Classroom, 10 Faculty	2021- Present
Development of Curricula and Educational Materials	
Medical Anatomy Lab Manual, Lebanese American University, Lebanon	2011
Masters in Human Anatomy Curriculum, University College Cork, Ireland Program Learning Outcomes All Coursework Learning Outcome Gross Anatomy Curriculum & Teaching Resources Anatomy Pedagogy Curriculum & Teaching Resources	2016
Graduate Certificate in Anatomy & Physiology, The Ohio State University	2020
Instructional Redesign Asynchronous courses Teaching in Large Classroom Flipped Classroom Team Based Learning Online Teaching	2021

Advising and Mentoring

Students

Dr. Elias Abdullah, MSc Human Anatomy, Supervisor	2018
Dr. Cassie Fives, MSc Human Anatomy, Supervisor	2019
Breffni Freyni, MSc Human Anatomy, Supervisor	2019
Lauren Riley, PhD Human Anatomy, Supervisor	2020
Tyler Hall, PhD Human Anatomy, Supervisor	2021
Michael Leake, MS Human Anatomy, Supervisor	2021
Mason Marek, MS Human Anatomy, Supervisor	2021
Jarrood Fair, MS Human Anatomy, Supervisor	2021
Jazmine Arce, MS Human Anatomy, Supervisor	2021

Faculty

Dr. Mutahira Lone, PhD Human Anatomy, Advisor	2018
Dr. Muhammad Asim Javid, PhD Human Anatomy, Advisor	2019

Scholarship

Primary Investigator of the Balta Lab

Current Members:

Tyler Hall- PhD Student- The Ohio State University
 Lauren Riley- PhD Student- The Ohio State University
 Jessica Willians- PhD Students- The Ohio State University
 Michael Leake-MS Student- The Ohio State University
 Mason Marek- MS Student- The Ohio State University
 Jazmine Arce- MS Student- The Ohio State University
 Jarrod Fair- MS Student- The Ohio State University
 Taylor Wyatt- MS Student- The Ohio State University
 Carsom Lambart- BS Student- The Ohio State University

Previous Members:

Dr. Elias Abdullah, MSc Student- University College Cork
 Dr. Cassie Fives, MSc Student- University College Cork
 Breffni Freyni, MSc Student- University College Cork
 Niamh O’Riley- MSc Student- University College Cork
 Amanda Gentile- MS Student- Queen’s University, Canada
 Nic Schul- BS Student- The Ohio State University

Scholarship of Research- Peer- Reviewed Publications

1. **Balta, J.Y.**, Venne, G., Noel, G.P.J.C 10 Tips on Working with Human Body Donors in Medical Training and Research. *Anatomical Science International* (2022).
2. Zealley, J.A., Howard, D., Thiele, C., **Balta, J.Y.** Human Body Donation: How informed are the donors? *Clinical Anatomy* (2022).
3. Abudllah, E., Lone, M., Cray, J.J., Dvoracek, P., **Balta, J.Y.** Medical Students' Opinions of Anatomy Teaching Resources and Their Role in Achieving Learning Outcomes. *Medical Science Educator* (2022).
4. Mosley, C., Lee W., Gilani, R., Terry, G., Reeves, R., **Balta J.Y.** Building Bridges with Anatomy: Can Continuing Education in Mortuary Sciences Transform the Profession? *European Journal of Anatomy* (2021).
5. Abudllah, E., Lone, M., **Balta, J.Y.** Student-Centered Learning in the Anatomy Laboratory: Medical Students' Perspective. *Medical Science Educator* (2020).
6. **Balta, J.Y.**, Supple, B. and O'Keeffe, G.W. The Universal Design for Learning Framework in Anatomical Sciences Education. *Anatomical Sciences Education* (2020).
7. Vagg, T., **Balta, J.Y.**, Bolger, A. and Lone, M. Multimedia in Education: What do the Students Think? *Health Professions Education* (2020).
8. **Balta, J.Y.**, Blom, G., Davidson, A., Perrault, K., Cryan, J.F., O'Mahony, S. M., and Cassella, J.P. Developing a Quantitative Method to Assess the Decomposition of Embalmed Human Cadavers. *Forensic Chemistry* 18 (2020).
9. Saleme, F.T., O'Reilly, B.A. and **Balta, J.Y.** The Cadaver is Not Dead. *Anatomical Science International* (2020).
10. **Balta, J.Y.**, O'Keeffe, G.W. and Supple, B. Utilizing the scholarship of teaching and learning to design an Anatomy Pedagogy Course. *European Journal of Anatomy* 23(3): 233-240 (2019).
11. **Balta, J.Y.**, Cryan, J.F. and O'Mahony, S.M. The antimicrobial capacity of embalming solutions: a comparative study. *Journal of Applied Microbiology* 126(3): 764-770 (2019).
12. **Balta, J.Y.**, Twomey, M., Moloney, F., Duggan, O., Murphy, K.P., O'connor, O.J., Cronin, M., Cryan, J.F., Maher, M.M. and O'mahony, S.M. A comparison of embalming fluids on the structures and properties of tissue in human cadavers. *Anatomia, Histologia, Embryologia* 48(1): 64-73 (2019).

13. Moloney, F., Twomey, M., Fama, D., **Balta, J.Y.**, James, K., Kavanagh, R.G., Moore, N., Murphy, M.J., O'Mahony, S.M., Maher, M.M. and Cryan, J.F. Determination of a suitable low-dose abdominopelvic CT protocol using model-based iterative reconstruction through cadaveric study. *Journal of Medical Imaging and Radiation Oncology* 62(5): 625-633 (2018).
14. **Balta, J.Y.**, Twomey, M., Moloney, F., O'Connor, O.J., Murphy, K.P., Cronin, M., Cryan, J.F., Maher, M.M. and O'Mahony, S.M. Assessing radiological images of human cadavers: Is there an effect of different embalming solutions? *Journal of Forensic Radiology and Imaging* 11: 40-46 (2017).
15. Lone, M., McKenna, J.P., **Balta, J.Y.**, O'Mahony, S.M., Cryan, J.F., Downer, E.J. and Toulouse, A. Assessment of Thiel-Embalmed Cadavers as a Teaching Tool for Oral Anatomy and Local Anesthesia. *Journal of Dental Education* 81(4): 420-426 (2017).
16. **Balta, J.Y.**, Cronin, M., Cryan, J.F. and O'Mahony, S.M. The utility of cadaver-based approaches for the teaching of human anatomy: A survey of British and Irish anatomy teachers. *Anatomical Sciences Education* 10(2): 137-143 (2017).
17. **Balta, J.Y.**, Lamb, C. and Soames, R.W. A pilot study comparing the use of Thiel-and formalin-embalmed cadavers in the teaching of human anatomy. *Anatomical Sciences Education* 8(1): 86-91 (2015).
18. **Balta, J.Y.**, Cronin, M., Cryan, J.F. and O'Mahony, S.M., 2015. Human preservation techniques in anatomy: a 21st century medical education perspective. *Clinical Anatomy*, 28(6), pp.725-734.

Scholarship of Research- Books and Chapters

1. **Balta, J.Y.** and Whiting, K. *World Small Hydropower Development Report—Lebanon & Jordan* 306-3011. United Nations (2014).

Invited Presentations

International

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| Human Body Donor Research- Current Trends and Future Directions,
Institute of Anatomical Sciences, Spring Scientific Meeting, London, UK | 04/24/2021 |
| The Anatomy Education Podcast, Leads University, England
http://anatomypodcast.co.uk/episodes/dr-joy-balta/ | 09/24/2017 |
| Teaching and Learning in Anatomy, Queen's University Belfast, Belfast,
Northern Ireland | 04/29/2018 |



Cadaver & Embalming Research in the 21st Century, King's College
London, London, England 06/8/2018

Expositors Collective- Pedagogy, Educational Theory & Sunday Teaching,
Cork, Ireland 12/24/2019
<https://www.expositorscollective.com/podcast/2019/12/24/episode-80-pedagogy-educational-theory-amp-sunday-sermons>

National

Cadaveric and Embalming Research; Challenges and Opportunities,
American Association for Anatomy, Indiana 05/01/2021

The Use of Soft Preserved Cadavers in Medical Education, Western
University, California 06/26/2017

Anatomy in the Irish Medical Education- The Land of Saints and Scholars,
The George Washington University, Washington, DC 12/13/2017

Clinically Applied Anatomy- The Shoulder Region, Liberty University
College of Osteopathic Medicine, Virginia 02/23/2018

Regional

The Application of Clinical Vignette in Anatomy Teaching, Oakland
University, Michigan 03/20/2017

Other Presentations, Posters, and Abstracts

1. **Balta, J.Y.**, Cronin, M., Cryan, J.F. and O'Mahony, S.M. The utility of cadaver-based approaches for the teaching of human anatomy: A survey of British and Irish anatomy teachers. Experimental Biology 2016
2. Banani, T., Lee, J., Lean, A.N., Butera, G., Brown, K., Jurjus, A.R., Hawi, J., Leon, A., Cappello, F., **Balta, J.Y.**, Lone, M. and Jurjus, R. Knowledge Retention Across curricular models: an international collaboration. George Washington University 2018
3. Boaz, N. T., Abercrombie, C., **Balta, J.Y.**, Becker, R., Bernor, R., Clary, T., Goodmurphy, C., Graham, J., Kalmar E.L., Wasigroch, T., Krimier, J., Robinson, C., Sikon, D., Sikon, R., and Wessels, M. issue Solidification in Heart, Lung, and Brain in Soft-Embalmed Cadavers AACA Meeting- Award Winning Presentation 2018
4. Jurjus, R. A., Banani, T., Goldman E., Lean, A.N., Butera, G., Jurjus, A.R., Hawi, J., Leon, A., Cappello, F., Buchcieri, F., **Balta, J.Y.**, Lone,



- M., Brown, K. and Lee, J. Knowledge retention across curricular models: An international collaboration. AACA Regional Meeting in Washington, D.C
5. Banani, T., Lee, J., Lean, A.N., Butera, G., Brown, K., Jurjus, A.R., Hawi, J., Leon, A., Cappello, F., **Balta, J.Y.**, Lone, M. and Jurjus, R. Knowledge Retention Across curricular models: an international collaboration. AAMC- NEGEA 2018
 6. Lone, M., Abdullah, E. and **Balta, J.Y.** Assessing Student-Led Learning in an Anatomy Practical: Students' Perception. Experimental Biology 2019
 7. **Balta, J.Y.**, Lone, M. and Jurjus, R. A. What do the Students Remember? A Retention Study among Irish Medical Students. Experimental Biology 2019
 8. Dvoracek, P., **Balta, J.Y.** Osadjan, M. Analysis of Undergraduate Retention Outcomes: What do Students Actually Remember? Experimental Biology 2020
 9. **Balta, J.Y.**, Thiele, C. and Fernandes, A. Engaging the Hidden Curriculum: A Pilot Intervention Using the Anatomy Lab to Teach Ethics & Professionalism. AAMC- CGEA 2020
 10. Thiele C, Fernandes AK, Quinn MM, **Balta JY**. Dissecting Medical Students' Body Donor Dissection Experience: What can we learn? ASGBI. 2021
 11. Mosley C, Lee W, Reeves R, Gilani R, Terry G, **Balta JY**. Anatomy and Mortuary Sciences: The Crossed Paths of Two Disciplines. ASGBI. 2021
 12. Lobdell J, **Balta JY**, Mosley C. A Unique Variation of Gantzer Muscle. ASGBI. 2021
 13. Mosley C, Beam S, Brzezinski E, Cooper M, Li R, Mohi A, Prada C, **Balta JY**. Cadaveric anomalous circumflex artery finding: a case study. ASGBI. 2021
 14. **Balta JY**, Thiele C, Fernandes AK. Preparedness, Challenges & Processing of Medical Students' Body Donor Dissection Experience. AAA. 2021
 15. Feryni B, Lone M, **Balta JY**. Assessing Stress Related Behaviours on Temporomandibular Joint Dysfunction: A Pilot Study. AAA. 2021



16. Hall TR, Beam SA, Parker MF, **Balta JY**, Burgoon JM. Multiple Variations of Forearm Musculature Uncovered During Routine Cadaveric Dissection. AACA. 2021
17. Zealley J, Howard D, Thiele C, **Balta JY**. Consent in Human Body Donation. ASBH. 2021

Professional Development

Gross Anatomy of the Thoracic Region, Organizer, Columbus, Ohio

Gross Anatomy of the Upper Limb & Back, Organizer, Columbus, Ohio

Gross Anatomy of the Thoracic Region, Organizer, Marion, Ohio

Committee Assignments and Administrative Service

Department of Biomedical Education & Anatomy, The Ohio State University
Chair, Body Donation Program Advisory Committee 2019- 2022

Division of Anatomy, The Ohio State University
Manager, Social Media Team 2019- 2022

Surgical Skills Lab, The Ohio State University Wexner Medical Center
Member, Surgical Education Committee 2019- 2022

University Institute for Teaching and Learning, The Ohio State University
Member, CIRT Network Steering Committee 2019- 2022

Office of Academic Affairs, The Ohio State University
Member, Teaching Evaluation Committee 2020- 2022

Community Service

World Vision, Lebanon, Volunteer Coordinator 2004- 2009

As You Are, Lebanon, Founding President 2009-2013

National Health Services, Scotland, Suicide First Aid Interventionist 2011-2012

Dream Center Homeless Outreach, Ohio, Volunteer 2019- 2022

Life Beyond the Streets, Ohio, Volunteer 2020- 2022