

**Andrea Bonetto, Ph.D.**  
***Curriculum Vitae***

**CONTACT INFORMATION**

Associate Professor  
Department of Pathology  
University of Colorado Anschutz Medical Campus  
12800 19<sup>th</sup> Ave, P18-5128  
Aurora, CO 80045  
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**EDUCATION**

1999 – 2004	University of Torino Department of Experimental Medicine & Oncology Torino, Italy	MSc. Industrial Biotechnology Dr. Paola Costelli (mentor)
2004 – 2008	University of Torino Department of Experimental Medicine & Oncology Torino, Italy	Ph.D. Industrial Biotechnology Dr. Paola Costelli (mentor)
2009 – 2010	University of Genova, 'G. Gaslini' Children Hospital Muscular and Neurodegenerative Disease Unit Genova, Italy	Postdoctoral Fellow Dr. Carlo Minetti (mentor)
2010 – 2011	University of Miami Miller School of Medicine Sylvester Comprehensive Cancer Center Miami, FL	Postdoctoral Fellow Dr. Teresa Zimmers (mentor)
2011 – 2013	Thomas Jefferson University Kimmel Cancer Center Philadelphia, PA	Postdoctoral Fellow Dr. Teresa Zimmers (mentor)

**ACADEMIC APPOINTMENTS**

2013 – 2015	Assistant Research Professor	Indiana University School of Medicine Department of Surgery Indianapolis, IN
2015 – 2021	Assistant Professor (tenure-track)	Indiana University School of Medicine Department of Surgery Indianapolis, IN
2016 – 2021	Adjunct Assistant Professor (tenure-track)	Indiana University School of Medicine Department of Otolaryngology – Head&Neck Surgery Indianapolis, IN
2016 – 2021	Adjunct Assistant Professor (tenure-track)	Indiana University School of Medicine Department of Anatomy, Cell Biology & Physiology Indianapolis, IN
2021 – 2022	Associate Professor (with tenure)	Indiana University School of Medicine Department of Surgery Indianapolis, IN
2021 – 2022	Adjunct Associate Professor	Indiana University School of Medicine

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

		Department of Otolaryngology – Head&Neck Surgery Indianapolis, IN
2021 – 2022	Adjunct Associate Professor	Indiana University School of Medicine Department of Anatomy, Cell Biology & Physiology Indianapolis, IN
2022 – pres.	Visiting Associate Professor	University of Colorado Anschutz Medical Campus Department of Pathology Aurora, CO

**HONORS, SPECIAL RECOGNITIONS AND AWARDS**

2011	Best Basic Science Award, 6 <sup>th</sup> Cachexia Conference Milan, Italy
2012	Best Poster, Cancer Cachexia Conference: Molecular Mechanisms and Therapeutic Approaches Boston, MA
2013	Best Poster, Postdoctoral Research Symposium, Thomas Jefferson University Philadelphia, PA
2014	Best Poster, 2 <sup>nd</sup> Cancer Cachexia Conference: Evolving mechanisms and therapies Montreal, Canada
2015	Best Basic Science Award, 8 <sup>th</sup> Cachexia Conference Paris, France
2017	Research Scholar, V Foundation for Cancer Research Cary, NC
2018	Research Scholar, Showalter Research Trust Indianapolis, IN
2018	Research Scholar, American Cancer Society Atlanta, GE
2018	Excellence in Research Award, 4 <sup>th</sup> Cancer Cachexia Conference Philadelphia, PA
2018 - 2019	Visiting Professor of Molecular Oncology Department of Life Sciences and Systems Biology University of Torino, Italy

**MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS**

**Academic**

2014 – 2018	Associate Member Tumor Microenvironment & Metastasis Program Simon Comprehensive Cancer Center, Indiana University Indianapolis, IN
2018 – 2022	Full Member Tumor Microenvironment & Metastasis Program Simon Comprehensive Cancer Center, Indiana University Indianapolis, IN
2015 – 2022	Member Center for Cachexia Research Innovation and Therapy (CCRIT), Indiana University Indianapolis, IN

## CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- 2017 – 2022 Member  
Muscle Bone Crosstalk Research Team (MBCRT)  
Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2022 – pres. Full Member  
Tumor Host Interactions Program  
Cancer Center, University of Colorado Anschutz Medical Campus
- 2022 – pres. Faculty Member  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus
- 2023 – pres. Faculty Member  
Biomedical Sciences Graduate Program  
University of Colorado Anschutz Medical Campus
- 2023 – pres. Faculty Member  
Integrated Physiology Graduate Program  
University of Colorado Anschutz Medical Campus

### **Non-Academic**

- 2011 – pres. Member  
SCWD - Society on Cachexia, Sarcopenia and Wasting Disorders
- 2012 – pres. Active Member  
AACR - American Association for Cancer Research
- 2012 – pres. Regular Member  
APS - American Physiological Society
- 2017 – pres. Member  
ASBMR - American Society for Bone and Mineral Research
- 2017 – pres. Affiliate  
ISSNAF - Italian Scientists and Scholars of North America Foundation
- 2018 – pres. Member  
CCS - Cancer Cachexia Society

## **MAJOR COMMITTEES AND SERVICE RESPONSIBILITIES**

### **Institutional/Local**

- 2015 – 2022 Co-Leader (with Teresa Zimmers)  
Center for Cachexia Research Innovation and Therapy (CCRIT), Indiana University  
Indianapolis, IN
- 2016 – 2021 Member, Poster Awards Committee  
IUSCC Cancer Research Day  
Simon Comprehensive Cancer Center, Indiana University  
Indianapolis, IN
- 2017 – 2022 Member, Pilot Grant Committee  
Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2017 – 2022 Member, External Speaker Committee  
Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2017 – 2022 Member, Multi-Center Pilot Grant Committee  
Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2018 – 2022 Member, Grant Pre-Submission Review Committee

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

- Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2018 Member, Poster Awards Committee  
Postdoc Symposium 2018  
Office of Postdoctoral Affairs, Indiana University  
Indianapolis, IN
- 2019 Member, Oral Presentation Awards Committee  
Postdoc Symposium 2019  
Office of Postdoctoral Affairs, Indiana University  
Indianapolis, IN
- 2019 – 2022 Member, Biomedical Research Committee (BRC)  
Review Committee, BRG, REG, Showalter Trust, and Charles FISCH grants  
Indiana University, FAPDD  
Indianapolis, IN
- 2020 – 2022 Co-Leader (with Uma Sankar)  
Muscle Bone Crosstalk Research Team (MBCRT)  
Indiana Center for Musculoskeletal Health, Indiana University  
Indianapolis, IN
- 2020 – 2022 Member, Faculty Community Relations Committee  
Indiana University, FAPDD  
Indianapolis, IN
- 2020 – 2022 Member, Lab Animal Resource Center (LARC) Advisory Committee  
Indiana University, FAPDD  
Indianapolis, IN
- 2022 Member, Preclinical Modeling & Therapeutics Core (PMTc) Advisory Committee  
Simon Comprehensive Cancer Center  
Indiana University  
Indianapolis, IN
- 2023 Member, NRSA Fellowship Workshop and Mock Study Section Committee  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 – pres. Leader, Skeletal Muscle Working Group  
Colorado Nutrition Obesity Research Center  
University of Colorado Anschutz Medical Campus  
Aurora, CO

**Departmental**

- 2017 - 2018 Member, Poster Award Committee  
Biochemistry Research Day 2017  
Department of Biochemistry, Indiana University School of Medicine  
Indianapolis, IN
- 2023 Chair, Search Committee for Vice-Chair for Research Recruitment  
Department of Pathology, University of Colorado Anschutz Medical Campus  
Aurora, CO

**Graduate School**

- 2019 Member and External Examiner, Graduate Committee  
Student: Marc Beltra-Bach  
Life Sciences Graduate Program  
University of Torino  
Torino, Italy
- 2020 Member and External Examiner, Graduate Committee  
Student: Tuuli Nissinen

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

- Sport and Health Sciences Graduate Program  
University of Jyväskylä  
Jyväskylä, Finland
- 2020 Member and External Examiner, Graduate Committee  
Student: Roberta Belli  
Biomedical Techniques in Clinical Medicine Graduate Program  
Sapienza University  
Rome, Italy
- 2022 Member, Poster Award Committee, 2022 CANB Retreat  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2022-2023 Member, Admission Committee  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 Member, Preliminary Exam Committee  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 Co-Chair (with Arianne Theyss), 2023 CANB Retreat  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 – pres. Member, Mentoring and Thesis Committee  
Student: Nicholas Olimpo  
Cancer Biology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 – pres. Member, Graduate Training and Oversight Committee (GTOC)  
Integrated Physiology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 – pres. GTOC IPHY Mentor  
Student: Gabriel Medrano  
Integrated Physiology Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023-2024 Member, Admission Committee  
Biomedical Science Graduate Program  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- National/International**
- 2016 Member, Poster Award Committee  
3<sup>rd</sup> Cancer Cachexia Conference  
Washington, DC
- 2019 Member, Poster Awards Committee  
Gordon Research Conferences  
Gordon Research Conference “Myogenesis”  
Lucca, Italy
- 2022 Member, Program Advisory Committee (Translational Sub-Committee)

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- ASBMR 2023 Annual Meeting  
American Society for Bone and Mineral Research (ASBMR)
- 2022 – 2023 Co-Chair, Education and Communications Committee  
CCS - Cancer Cachexia Society
- 2023 – pres. Member, External Advisory Board  
PhD Program in Experimental Medicine and Therapy (EMT)  
University of Torino  
Torino, Italy

**Community/Service**

- 2018 Mechanisms of chemotherapy-induced muscle weakness and fatigue  
Volunteer and Presenter at American Cancer Society – Research Breakfast  
Indianapolis, IN
- 2018 Mechanisms of chemotherapy-induced muscle weakness and fatigue  
Volunteer and Presenter at American Cancer Society – Indiana Volunteer Leadership Conference  
Brownsburg, IN
- 2020 Mechanisms of chemotherapy-induced muscle weakness and fatigue  
Volunteer and Presenter at American Cancer Society – Indiana Volunteer Leadership Conference  
Brownsburg, IN

**INVENTIONS, INTELLECTUAL PROPERTY AND PATENTS HELD OR PENDING**

- 2020 International patent pending: *'Method to reduce muscle loss from cancer'*  
Fabrizio Pin, Andrea Bonetto, Lynda F. Bonewald
- 2021 International patent pending: *'Deletion of FNDC5 reduces cancer induced muscle loss/cachexia'*  
Fabrizio Pin, Anika Shimonty, Andrea Bonetto, Lynda F. Bonewald
- 2022 International patent pending: *'Composition and method to treat cachexia'*  
Joshua R. Huot, Andrea Bonetto

**REVIEW AND REFEREE WORK**

**Local/National**

- 2015 Member, Grant Review Panel  
Review of Core Pilot Grants  
CTSI, Indiana University  
Indianapolis, IN
- 2015 – 2020 Member, Grant Review Panels  
Review of proposals for V Foundation Scholar Awards, AACR Travel Awards, IUSCC Assistant Professor Pilot Proposals, Hester Scholarship Applications, Pilot Projects for Cancer Prevention and Control (CPC), Breast Cancer Drug Discovery Pilot Proposals, Deutsch Scholarships.  
Simon Comprehensive Cancer Center, Indiana University  
Indianapolis, IN
- 2016 Member, Simmons Clinical and Translation Awards Committee  
Wells Center for Pediatric Research, Indiana University  
Indianapolis, IN
- 2016 – 2022 *Ad hoc* Reviewer  
Florida Department of Health  
Review grants, Bankhead-Coley Cancer Research Program and James and Esther King Biomedical Research Program
- 2018 Member, Grant Review Panel  
Review of Research Support Funds Grants (RSFG)

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- IUPUI Office of the Vice Chancellor for Research  
Indiana University  
Indianapolis, IN
- 2018 – 2022 NIH Early Career Review Program  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2019 Member, Grant Review Panel  
Review of IUSM Multi-Center Pilot Grants  
Indiana University  
Indianapolis, IN
- 2019 *Ad hoc member*  
Spinal Cord Injury Research Program (SCIRP)  
Congressionally Directed Medical Research Programs (CDMRP)  
Fort Detrick, MD
- 2020 Member, Grant Review Panel  
Review of Mary Kay Foundation Cancer Research Grants  
Indianapolis, IN
- 2022 *Ad hoc* Reviewer  
The Ohio State University, CFAES  
Review of CFAES Internal Grants Program  
Columbus, OH
- 2022 *Ad hoc member*  
ZCA1 TCRB-V(O1)S study section  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2022 *Ad hoc member*  
SMEP study section  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2023 *Ad hoc member*  
ZRG1 MSOS-C(02)M study section  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2023 *Ad hoc member*  
ZCA1 TCRB-V(O1)R study section  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2023 *Ad hoc member*  
SMEP study section  
NIH – Center for Scientific Review (CSR)  
Bethesda, MD
- 2023 *Ad hoc member*  
Molecular Biology and Genetics 3 (MBG-3) study section  
Congressionally Directed Medical Research Programs (CDMRP)  
Fort Detrick, MD
- International**
- 2015 *Ad hoc* grant reviewer  
UK Medical Research Council - MRC  
United Kingdom
- 2017 *Ad hoc* Reviewer  
Health Research Board of Ireland

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- Investigator-Led Project Research Program  
Ireland
- 2017 *Ad hoc* Reviewer  
AFM-Telethon  
Fundamental Myology Scientific Study Section  
France
- 2018 *Ad hoc* Reviewer  
Swiss Cancer League  
Switzerland
- 2019 – 2021 *Ad hoc* Reviewer  
French Cancer Institute  
France
- 2020 *Ad hoc* Reviewer  
Research Foundation Flanders - FWO  
Junior and Senior Research Projects  
Belgium
- 2020 *Ad hoc* Reviewer  
European Research Council  
BE-FOR-ERC Funding Mechanisms  
Belgium
- 2021 - 2023 *Ad hoc* Reviewer  
Worldwide Cancer Research - WCR  
United Kingdom
- 2021 *Ad hoc* Reviewer  
BioTechMed Graz  
Austria
- 2023 *Ad hoc* Reviewer  
World Cancer Research Fund (WCRF) International  
United Kingdom
- 2023 *Ad hoc* Reviewer  
Sapienza University of Rome – Research Projects Call  
Italy

**Manuscript Peer Review**

2010 – pres. *Ad hoc* reviewer for (*number of manuscripts reviewed*):  
Journal of Cellular and Molecular Medicine (6), Muscle & Nerve (5), Recent Patents on Regenerative Medicine (1), American Journal of Physiology - Heart Circulatory Physiology (1), The FASEB Journal (6), Journal of Cachexia, Sarcopenia and Muscle (37), Scientific Reports (3), Biochemistry and Biophysics Reports (1), Clinical and Experimental Pharmacology and Physiology (2), British Journal of Cancer (1), Mitochondrion (1), Oncotarget (4), PLoS One (5), Biomedicine & Pharmacotherapy (1), Disease Models & Mechanisms (1), Annals of Translational Medicine (1), Bone (2), Carcinogenesis (1), Trends in Cancer (1), Cancers (Basel) (4), Medicine & Science in Sports & Exercise (2), Current Osteoporosis Reports (12), Journal of Bone and Mineral Metabolism (1), Journal of Applied Physiology (1), Frontiers in Immunology (1), JCSM Rapid Communications (2), Frontiers in Physiology (1), BMC Musculoskeletal Disorders (1), Nature Communications (1), Frontiers in Cell and Developmental Biology (3), Frontiers in Endocrinology (1), Cancer Medicine (1), International Journal of Molecular Sciences (1), Experimental Biology and Medicine (1), British Journal of Pharmacology (1), Frontiers in Oncology (1), American Journal of Physiology – Cell Physiology (3), Seminars in Cancer Biology (1), Cell Reports (1), Nature Reviews Clinical Oncology (1), Cell Reports Medicine (1), Autonomic Neuroscience (1).

**Editorial Boards**

2017 – 2020 JCSM Rapid Communications



CURRICULUM VITAE ANDREA BONETTO, Ph.D.

Section Editor  
Journal of Cachexia, Sarcopenia and Muscle - Rapid Communications  
Wiley, USA

2019 – pres. Current Osteoporosis Reports  
Section Editor – Muscle and Bone  
Springer, USA

2019 – pres. Journal of Cachexia Sarcopenia and Muscle (JCSM)  
Associate Editor  
Wiley, USA

2023 – pres. Current Osteoporosis Reports  
Section Editor – Use of Artificial Intelligence in the Musculoskeletal Field  
Springer, USA

**INVITED EXTRAMURAL LECTURES, PRESENTATIONS AND VISITING PROFESSORSHIPS**

**Local/Institutional/Departmental:**

- 2014 ‘Muscle wasting in ovarian cancer cachexia: role of IL-6 versus IL-11’  
Indiana University Department of Surgery – Research Seminar Series  
Indianapolis, IN
- 2014 ‘Muscle wasting in ovarian cancer cachexia: role of IL-6 versus IL-11’  
Ovarian Cancer Working Group – Seminar Series  
Indianapolis, IN
- 2015 ‘Cachexia Working Group Update’  
IU Simon Cancer Center – TMM Retreat  
Indianapolis, IN
- 2015 ‘New insights into chemotherapy-associated cachexia’  
IU Cancer Research Club – Research Seminar Series  
Indianapolis, IN
- 2016 ‘Understanding the pathogenesis of chemotherapy-associated cachexia’  
IUSCC Cancer Research Day 2016  
Indianapolis, IN
- 2016 ‘Cancer cachexia vs. chemotherapy-associated cachexia: two sides of the same coin?’  
Medical Sciences Seminars in Cancer Biology  
Bloomington, IN
- 2016 ‘Mechanisms of chemotherapy-induced muscle weakness and fatigue’  
Anatomy & Cell Biology Fall Retreat  
Indianapolis, IN
- 2016 ‘New Insights into chemotherapy-derived cachexia and muscle weakness’  
Grand Rounds-Department of Otolaryngology  
Indianapolis, IN
- 2017 ‘Understanding the mechanisms associated with chemotherapy-derived cachexia and muscle weakness’  
IUSCC Tumor Microenvironment & Metastasis (TMM) program meeting  
Indianapolis, IN
- 2017 ‘Mechanobiology/Muscle-Bone Crosstalk subteam: Muscle & Cachexia’  
1<sup>st</sup> ICMH Annual Retreat  
Indianapolis, IN
- 2018 ‘Ovarian cancer causes loss of muscle and bone mass: a new model for the study of cancer cachexia’  
Grand Rounds - Department of Surgery, IU  
Indianapolis, IN

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- 2019 *'Mechanisms of cancer- and chemotherapy-induced cachexia'*  
IUSCC Grand Rounds  
Indianapolis, IN
- 2019 *'I have a faculty job offer: now what?'*  
Office of Postdoctoral Affairs, IUSM  
Indianapolis, IN
- 2019 *'Muscle/bone crosstalk in cancer cachexia: the role of RANKL'*  
Grand Rounds – Otolaryngology, Head and Neck Surgery, IU  
Indianapolis, IN
- 2020 *'Musculoskeletal deficits induced by cancer and its treatments'*  
IUSCCC Seminar Series  
Indianapolis, IN
- 2020 *'Tumor- and host-derived mediators trigger muscle and bone loss in experimental cancer cachexia'*  
IUSCCC TMM/ICMH Lecture  
Indianapolis, IN
- 2020 *'Update on Muscle and Bone Crosstalk Research Team'*  
ICMH EAB Meeting  
Indianapolis, IN
- 2020 *'Functional and molecular analysis of muscle in patients with and without head and neck cancer cachexia'*  
ICMH EAB Meeting  
Indianapolis, IN
- 2020 *'Consequences of TREM2 mutations in bone and muscle'*  
ICMH EAB Meeting  
Indiana University School of Medicine  
Indianapolis, IN
- 2020 *'Tumor- and host-derived mediators trigger muscle and bone loss in experimental cachexia'*  
IUSCCC Colorectal Cancer Working Group  
Indiana University School of Medicine  
Indianapolis, IN
- 2021 *'Tumor- and host-derived factors drive musculoskeletal complication in cancer cachexia'*  
Department of Anatomy Cell Biology and Physiology  
Indiana University School of Medicine  
Indianapolis, IN
- 2022 *'Musculoskeletal defects induced by cancer and its treatments'*  
Cancer Biology Program Seminar Series  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2022 *'Tumor- and host-derived mediators trigger muscle and bone loss in experimental cachexia'*  
CU Cancer Center Symposium Series  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 *'Metabolic alterations associated with skeletal muscle atrophy in cancer cachexia'*  
Cancer Metabolism Workshop (NORC and UCCCC)  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 *'Musculoskeletal defects associated with the onset of ovarian cancer: mechanisms and potential treatments'*  
Rocky Mountain Ovarian Cancer SPORE Symposium  
University of Colorado Anschutz Medical Campus  
Aurora, CO

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- 2023 *'Mitochondria-targeted strategies to counteract chemotherapy-induced cachexia'*  
Integrated Physiology Program Seminar Series  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 *'Acute and long-lasting musculoskeletal complications of chemotherapy'*  
Perinatal Neonatal Research Conference Seminars  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 *'Mitochondria-targeted strategies to counteract chemotherapy-induced cachexia'*  
SuperMito Group Meeting  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- National**
- 2015 *'New insights into chemotherapy-associated cachexia'*  
Glaxo Smith Klein  
King of Prussia, PA
- 2016 *'New insights into chemotherapy-related muscle atrophy and fatigue'*  
Advances in skeletal muscle biology in health and disease  
Gainesville, FL
- 2016 *'Cancer cachexia vs. chemotherapy-associated cachexia: two sides of the same coin?'*  
3<sup>rd</sup> Cancer Cachexia Conference  
Washington, DC
- 2018 *'Understanding the mechanisms responsible for cancer- and chemotherapy-associated cachexia'*  
Fulcrum Therapeutics  
Cambridge, MA
- 2018 *'Understanding the mechanisms responsible for cancer- and chemotherapy-derived cachexia'*  
Department of Clinical Laboratory Sciences  
University of Tennessee Health Science Center  
Memphis, TN
- 2018 *'Understanding the mechanisms associated with chemotherapy-derived cachexia and muscle weakness'*  
Department of Cancer Biology  
Loyola University Stritch School of Medicine  
Chicago, IL
- 2018 *'PDK4 drives metabolic alterations and skeletal muscle atrophy in cancer cachexia'*  
4<sup>th</sup> Cancer Cachexia Conference  
Philadelphia, PA
- 2019 *'Cancer- and chemotherapy-induced musculoskeletal complications'*  
Pennsylvania State University  
State College, PA (host: Dr. Gustavo Nader)
- 2019 *'Mechanisms of cancer- and chemotherapy-induced cachexia'*  
CTI – Pfizer  
New York, NY
- 2021 *'Mitochondria-targeted strategies ameliorate chemotherapy-induced cachexia'*  
The New York Academy of Sciences – Confronting Cachexia  
Virtual
- 2021 *'Musculoskeletal defects induced by cancer and its treatments'*  
University of Colorado Anschutz School of Medicine  
Virtual (host: Dr. Steve Anderson)
- 2021 *'Mechanisms of chemotherapy-induced musculoskeletal complications'*

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- 6<sup>th</sup> Cancer Cachexia Hybrid Conference Virtual  
Virtual
- 2021 *'Musculoskeletal complications of cancer and its treatments'*  
Inside Scientific & American Physiological Society, Webinar  
Virtual
- 2022 *'Tumor- and host-derived factors drive musculoskeletal complication in cancer cachexia'*  
Myology Institute Seminar Serie  
University of Florida (host: Dr. Andrew Judge)
- 2022 *'Tumor-host interactions in cancer associated-musculoskeletal defects'*  
Gisolfi Lecture, University of Iowa  
Iowa City, IA (host: Dr. Erin Talbert)
- 2023 *'IGFBP1 mediates musculoskeletal defects in colorectal cancer'*  
AACR Meeting 2023  
Orlando, FL
- 2024 *'Acute and long-lasting musculoskeletal complications of chemotherapy'*  
APS2024 Summit  
Long Beach, CA

**International**

- 2015 *'Mitochondrial depletion and MAPKs activation are associated with the occurrence of muscle loss and fatigue: a potential mechanism for chemotherapy-associated cachexia'*  
8<sup>th</sup> Cachexia Conference  
Paris, France
- 2017 *'Modeling cachexia: the impact of anti-neoplastic therapy'*  
10<sup>th</sup> Cachexia Conference  
Rome, Italy
- 2017 *'Understanding the mechanisms associated with chemotherapy-derived cachexia and muscle weakness'*  
Doctoral School in Life and Health Sciences  
University of Torino  
Torino, Italy (host: Dr. Paola Costelli)
- 2018 *'PDK4 drives metabolic alterations and skeletal muscle atrophy in cancer cachexia'*  
11<sup>th</sup> Cachexia Conference  
Maastricht, Netherlands
- 2018 *'Metabolic abnormalities in cancer cachexia'*  
Doctoral School in Life and Health Sciences  
University of Torino  
Torino, Italy (host: Dr. Paola Costelli)
- 2019 *'Musculoskeletal complications of cancer and its treatments'*  
12<sup>th</sup> Cachexia Conference  
Berlin, Germany
- 2021 *'Musculoskeletal defects induced by cancer and its treatments'*  
Université Catholique de Louvain  
Virtual (host: Dr. Laure Bindels)
- 2021 *'Targeting RANKL for the treatment of muscle and bone defects in cachexia'*  
XXXVI Annual Meeting of the Chilean Society of Physiological Sciences  
Virtual
- 2022 *'Abnormal liver-bone-muscle axis in cancer cachexia'*  
15<sup>th</sup> International SCWD Conference  
Lisbon, Portugal
- 2022 *'IGFBP1 mediates musculoskeletal deficits in colorectal cancer'*  
International Conference on Muscle Wasting

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

Ascona, Switzerland

- 2022 *'From the Alps to the Rocky Mountains: the journey of a pathology student'*  
University of Torino, Life Sciences PhD Program  
Torino, Italy (host: Dr. Fabio Penna)
- 2023 *'Liver metastases enhance the pro-cachectic signaling in colorectal cancer hosts'*  
16<sup>th</sup> International Conference on Sarcopenia, Cachexia and Wasting Disorders  
Stockholm, Sweden

## TEACHING RECORD

### Undergraduate Courses

- 2005 – 2007 B8526 Immunology  
Department of Biological Sciences  
University of Torino, Italy  
18 hours  
Format: Lecture  
Enrollment: 30 undergraduate students of Biological Sciences were in attendance  
Role: Lecturer
- 2005 – 2008 S8923 Laboratory of Biological Chemistry and Pathology  
Department of Biological Sciences  
University of Torino, Italy  
47 hours  
Format: Laboratory  
Enrollment: 30 undergraduate students of Biological Sciences were in attendance  
Role: Technical Support and Mentor

### Continuing Education

- 2007 Physiology and Physiopathology  
*'Tecniche della Prevenzione nell'ambiente e nei luoghi di lavoro'*  
Regione Piemonte (ASL 5), University of Torino, Polytechnic School of Torino, Italy  
18 hours  
Format: Lecture  
Enrollment: 30 veterinarians were in attendance.  
Role: Lecturer
- 2016 Grand Rounds-Department of Otolaryngology  
*'New Insights into chemotherapy-derived cachexia and muscle weakness'*  
Indiana University School of Medicine  
Indianapolis, IN  
Format: Lecture  
Enrollment: faculty, residents and trainees affiliated with the department.  
Role: Lecturer
- 2018 Grand Rounds - Department of Surgery  
*'Ovarian cancer causes loss of muscle and bone mass: a new model for the study of cancer cachexia'*  
Indiana University School of Medicine  
Indianapolis, IN  
Format: Lecture  
Enrollment: faculty, residents and trainees affiliated with the department.  
Role: Lecturer
- 2019 Grand Rounds – Otolaryngology, Head and Neck Surgery, IU  
*'Muscle/bone crosstalk in cancer cachexia: the role of RANKL'*  
Indiana University School of Medicine  
Indianapolis, IN  
Format: Lecture

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Enrollment: faculty, residents and trainees affiliated with the department.  
Role: Lecturer

- 2020 IUSCCC Seminar Series  
*'Musculoskeletal deficits induced by cancer and its treatments'*  
Indiana University School of Medicine Simon Comprehensive Cancer Center  
Indianapolis, IN  
Format: Lecture  
Enrollment: faculty, residents and trainees affiliated with the IU Cancer Center.  
Role: Lecturer
- 2022 CU Cancer Center Symposium Series  
*'Tumor- and host-derived mediators trigger muscle and bone loss in experimental cachexia'*  
University of Colorado Anschutz Medical Campus  
Aurora, CO  
Format: Lecture  
Enrollment: faculty, residents and trainees affiliated with the CU Cancer Center.  
Role: Lecturer

**Graduate Courses**

- 2017 P531 Physiology, Pathophysiology, and Pharmacology  
School of Health and Rehabilitation Sciences  
Indiana University, Indianapolis, IN  
2 hours  
Format: Lecture  
Enrollment: 40 Doctor of Physical Therapy students were in attendance.  
Role: Lecturer
- 2018 MEDX-750 Musculoskeletal and Dermatology  
School of Medicine  
Indiana University, Indianapolis, IN  
2 hours  
Format: Lecture and Team-Based Learning  
Enrollment: 40 Physical Therapy students were in attendance.  
Role: Lecturer
- 2018 G819 Basic Bone Biology  
School of Medicine  
Indiana University, Indianapolis, IN  
2 hours  
Format: Lecture  
Enrollment: 30 graduate students were in attendance.  
Role: Lecturer
- 2018 TIC08\_DIP\_BIOS Oncology and Molecular Pathology  
Department of Life Sciences and Systems Biology  
University of Torino, Italy  
16 hours  
Format: Lecture, Laboratory and Team-based learning  
Enrollment: 60 biology graduate students in attendance.  
Role: Visiting Professor
- 2019 D615-SABS II Muscle Physiology  
School of Dentistry  
Indiana University, Indianapolis, IN  
1 hour  
Format: Lecture  
Enrollment: 40 dentistry students were in attendance.  
Role: Lecturer
- 2019 TIC14\_DIP\_BIOS Oncology and Molecular Pathology

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

Department of Life Sciences and Systems Biology  
University of Torino, Italy  
16 hours  
Format: Lecture, Laboratory and Team-based learning  
Enrollment: 60 biology graduate students in attendance.  
Role: Visiting Professor

- 2020 G801 Neuromusculoskeletal Cell Biology  
Indiana Center for Musculoskeletal Health  
Indiana University, Indianapolis, IN  
1 hour  
Format: Video-lecture  
Enrollment: 9 graduate students were in attendance.  
Role: Lecturer
- 2020 D615-SABS II Muscle Physiology  
School of Dentistry  
Indiana University, Indianapolis, IN  
1 hour  
Format: Video-lecture  
Enrollment: 40 graduate students were in attendance.  
Role: Lecturer
- 2021 G717 Cell Biology  
School of Medicine  
Indiana University, Indianapolis, IN  
1 hour  
Format: In person teaching  
Enrollment: 20 graduate students were in attendance.  
Role: Lecturer
- 2021 D615-SABS II Muscle Physiology  
School of Dentistry  
Indiana University, Indianapolis, IN  
1 hour  
Format: In person teaching  
Enrollment: 40 graduate students were in attendance.  
Role: Lecturer
- 2023 IPHY7800 Comprehensive Physiology  
School of Medicine  
University of Colorado, Aurora, CO  
3 hours  
Format: Lecture  
Enrollment: 5 graduate students were in attendance.  
Role: Lecturer
- 2024 CANB7690 Grant Writing in Cancer Biology  
School of Medicine  
University of Colorado, Aurora, CO  
60 hours  
Format: Lectures and Team Based activities  
Enrollment: up to 10 graduate students were in attendance.  
Role: Course-Director and Lecturer
- 2024 IPHY7800 Comprehensive Physiology  
School of Medicine  
University of Colorado, Aurora, CO  
3 hours  
Format: Lecture  
Enrollment: 5 graduate students were in attendance.

Role: Lecturer

**Course Development**

2021 CANB-C850 Integrated Cancer Symptom Science  
School of Medicine  
Indiana University Simon Comprehensive Cancer Center (IUSCCC), Indianapolis, IN  
48 hours  
Format: Lectures and team-based learning sessions  
Enrollment: up to 20 graduate students expected to attend  
Role: Director  
Goal of the course: The course aims to provide the students with extensive knowledge on the physiological, molecular and biochemical abnormalities accompanying the muscle, bone and neuronal derangements that occur in cancer or following anticancer treatments. The course provides students with instruments to understand the molecular bases of muscle derangements associated with cancer and its treatments.  
Approval: Summer 2022  
*(\*I personally developed the course; however, I left Indiana University right after the course was approved. The course will be taught for the first time in the Fall of 2023 within the new Translational Cancer Biology PhD program at IUSCCC)*

**Laboratory Instruction of Learners/Mentees:**

2017 - 2019 Indianapolis Project STEM  
IUPUI - Indiana University, Indianapolis, IN  
8 weeks  
Format: Laboratory (full time)  
Enrollment: 4 high school students were in attendance.  
Role: Laboratory

2018 IUSCC – Summer Research Program (SRP)  
IU Simon Cancer Center, Indianapolis, IN  
8 weeks  
Format: Laboratory (full time)  
Enrollment: 1 college student was in attendance.  
Role: Laboratory

2019 IUSCC – Future Scientist Program (FSP)  
IU Simon Cancer Center, Indianapolis, IN  
6 weeks  
Format: Laboratory (full time)  
Enrollment: 1 high school student was in attendance.  
Role: Laboratory

2020 – 2021 IMPRS Program  
Indiana University School of Medicine, Indianapolis, IN  
10 weeks  
Format: Analysis of clinical datasets (remotely)  
Enrollment: 3 medical students were mentored.  
Role: The students were involved in data analysis and mentored remotely

2023 CORE Summer Research Program  
University of Colorado Anschutz Medical Campus  
8 weeks  
Format: Laboratory (full time)  
Enrollment: 1 undergraduate student was mentored.  
Role: Laboratory work

2023 CREU Cancer Research Experience for Undergraduates  
University of Colorado Anschutz Medical Campus  
8 weeks  
Format: Laboratory (full time)



*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

Enrollment: 1 undergraduate student was mentored.

Role: Laboratory work

**Trainees: Research Associates and Technical Support**

- 2010 – 2011 Ho Lam (Candy) Chan  
Research Associate  
University of Miami School of Medicine  
Role: Supervisor (in Teresa Zimmers' lab)
- 2015 – 2017 Rafael Barreto  
Research Technician Trainee  
Indiana University  
Role: Primary Mentor and Supervisor
- 2017 – 2018 Carlie E. Erne  
Research Technician Trainee  
Indiana University  
Role: Primary Mentor and Supervisor
- 2022 – pres. Patrick Livingston, BS  
Research Associate/PRA  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor
- 2023 – pres. Natalia Weinzierl, BS  
Research Associate/PRA  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor

**Trainees: High-School and Undergraduate Students**

- 2010 Ryan Santos  
Student enrolled in the STEP-UP Program, NIH/NIDDK  
University of Miami School of Medicine  
Role: Mentor and Supervisor (in Teresa Zimmers' lab)
- 2012 Briaira Geiger  
Student enrolled in the STEP-UP Program, NIH/NIDDK  
Thomas Jefferson University  
Role: Supervisor (in Teresa Zimmers' lab)
- 2014 Crystal Goodwin  
Undergraduate student enrolled in the IUPUI Women in Science Program  
Role: Supervisor (in Teresa Zimmers' lab)
- 2017 Katherine E. Couch  
Student enrolled in the Indiana CTSI Project STEM Internship Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2017 Kyra C. Colston  
Student enrolled in the Indiana CTSI Project STEM Internship Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2018 Vershawna Barnes  
Student enrolled in the IUSCC SRP Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2018 Maya Gutierrez  
Student enrolled in the Indiana CTSI Project STEM Research Program  
Indiana University  
Role: Primary Mentor and Supervisor

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

- 2019 Austin Keith  
Student enrolled in the Indiana CTSI Project STEM Research Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2019 Thang Cin Uap  
Student enrolled in the IUSCC FSP Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2021 Rohit Chatterjee  
Medical student enrolled in the Indiana CTSI Project STEM Research Program  
Indiana University  
Role: Primary Mentor and Supervisor
- 2023 Derik Diaz  
Student enrolled in the CREU Summer program  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor
- 2023 Lila Mouchantat  
Summer Student Assistant  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor
- 2023 Andrea Pedroza  
Undergraduate student enrolled in the CORE program  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor

**Trainees: Medical Students and Residents**

- 2010 – 2012 Felipe E. Pedroso, MD  
Medical school graduate trained in his pre-residency research  
fellowship University of Miami and Thomas Jefferson University  
Role: Mentor and Supervisor (in Teresa Zimmers' lab)  
Current Position: Pediatric Surgeon, Nicklaus Children's Hospital, Miami, FL
- 2014 Valorie A. Parker,  
Medical student performing elective summer research  
Indiana University  
Role: Supervisor (in Teresa Zimmers' lab)  
Current Position: PCP, Margaret Mary Health, Osgood, IN
- 2014 Ryan R. Matthews  
Medical student performing elective summer research  
Indiana University  
Role: Supervisor (in Teresa Zimmers' lab)  
Current Position: General Emergency Medicine, IU Health, Bloomington, IU
- 2015 Christopher Schneble  
Medical student performing elective summer research  
Indiana University  
Role: Supervisor (in Teresa Zimmers' lab)  
Current Position: Hospital Resident, Yale School of Medicine, New Haven, CT
- 2018 – 2022 Alexander J. Jones, MD  
Medical student and ENT resident performing elective research training in my lab  
Indiana University  
Role: Mentor and Supervisor  
Current Position: Otolaryngology PGY4 Resident, IU Health, Indianapolis, IN
- 2018 – 2019 Leah J. Novinger, MD, PhD  
ENT medical resident performing elective research in my lab

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

- Indiana University  
Role: Co-Mentor (with Marion Couch) and Supervisor  
Current Position: Facial Plastic and Reconstructive Surgery Fellow, Cleveland Clinic
- 2020 Marelle M. Rukes  
Medical student enrolled in the IMPRS Program  
Indiana University  
Role: Primary Mentor and Supervisor  
Current Position: Communication Liaison, IU Health, Indianapolis, IN
- 2020 Faisal S. Shariff  
Medical student enrolled in the IMPRS Program  
Indiana University  
Role: Primary Mentor and Supervisor

**Trainees: Graduate Students**

- 2012 – 2013 Andrea Camperi  
Visiting graduate student  
Thomas Jefferson University and Indiana University  
Role: Supervisor (in Teresa Zimmers' lab)  
Current Position: Diagnostic Program Manager, Merck, Darmstadt, Germany
- 2013 – 2015 Ernie D. Au  
Graduate student  
Biochemistry and Molecular Biology PhD Program, Indiana University.  
Role: Supervisor (in Teresa Zimmers' lab)  
Current Position: Sales Manager, ONI, Oxford, UK
- 2018 – 2022 Alyson L. Essex  
Graduate student, Anatomy and Cell Biology Program  
Indiana University  
Role: Co-mentor (with Lilian Plotkin, PhD) and member of the student's committee  
Current Position: Manager – Global Scientific Communications, Lilly, Indianapolis, IN

**Trainees: Postdoctoral Fellows**

- 2017 – 2021 Fabrizio Pin, PhD  
Postdoctoral fellow  
Indiana University  
Role: Primary Mentor and Supervisor  
Current Position: Assistant Professor, Indiana University, Indianapolis, IN
- 2018 – 2022 Joshua R. Huot, PhD  
Postdoctoral Fellow  
Indiana University  
Role: Primary Mentor and Supervisor  
Current Position: Assistant Professor, Indiana University, Indianapolis, IN
- 2021 – 2022 Julian Balanta-Melo, PhD  
Visiting Postdoctoral Fellow  
Indiana University  
Role: Primary Mentor and Supervisor  
Current Position: Postdoctoral Fellow, Indiana University, Indianapolis, IN
- 2022 – pres. Chandler Callaway, PhD  
Postdoctoral Fellow  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor
- 2022 – pres. Nicholas Jamnick, PhD  
Postdoctoral Fellow  
University of Colorado Anschutz Medical Campus  
Role: Primary Mentor and Supervisor

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

2023 – pres. Paul Roberson, PhD  
Postdoctoral Fellow  
University of Colorado Anschutz Medical Campus  
Role: Mentoring Committee Member and Co-Mentor for K01 application

**Trainees: Junior Faculty and Assistant Professor Level**

2021 – 2022 Fabrizio Pin  
Research Assistant Professor  
Department of Anatomy, Cell Biology & Physiology  
Indiana University  
Role: Mentoring Committee Member

2021 – 2022 Matthew Prideaux  
Research Assistant Professor  
Department of Anatomy, Cell Biology & Physiology  
Indiana University  
Role: Mentoring Committee Member

2021 – 2022 Lester J. Smith  
Assistant Professor  
Department of Radiology & Imaging Sciences  
Indiana University  
Role: Mentoring Committee Member

2022 – pres. Philip Owens  
Assistant Professor  
Department of Pathology  
University of Colorado Anschutz Medical Campus  
Role: Mentoring Committee Member

**Mentored awardees**

*Rafael Barreto, BS*

2016 Basic Science Poster (3<sup>rd</sup> place), IUSCC Research Day 2016  
Indianapolis, IN

*Fabrizio Pin, PhD*

2017 Best Poster Presentation (2<sup>nd</sup> place), IUSM Postdoc Symposium  
Indianapolis, IN

2018 Best Oral Presentation, IUSM Postdoc Symposium  
Indianapolis, IN

2019 CTSI Postdoc Challenge Grant (\$5,000), Indiana University School of Medicine  
Indianapolis, IN

2019 Young Investigator Travel Grant, American Society for Bone and Mineral Research (ASBMR)  
ASBMR 2019 Symposium  
Orlando, FL

2019 Young Investigator Award  
12<sup>th</sup> International Conference on Cachexia Sarcopenia and Wasting Disorders (SCWD)  
Berlin, Germany

2020 Best Oral Presentation, IUSM Postdoc Symposium  
Indianapolis, IN

2021 Selected talk, Next Generation Researcher in Cancer Cachexia  
Virtual Cancer Cachexia Conference 2021

2021 Promotion to Assistant Research Professor, Department of Anatomy Cell Biology & Physiology  
Indianapolis, IN

2021 Young Investigator Travel Grant, American Society for Bone and Mineral Research (ASBMR)  
ASBMR 2021 Symposium

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

San Diego, CA

2022 Tenure-Track Assistant Professor  
Department of Anatomy, Cell Biology & Physiology  
Indiana University School of Medicine  
Indianapolis, IN

*Alyson L. Essex*

2018 – 2024 Recipient of Graduate NIH Training Fellowship T32-AR065971 (PI: Robling)  
2019 Young Investigator Travel Grant, American Society for Bone and Mineral Research (ASBMR)  
ASBMR 2019 Symposium  
Orlando, FL  
2019 Research Grant, Beckman-Coulter  
2020 ASBMR Young Investigator Award, ASBMR, 2020 ECTS Digital Masterclass  
2020 Selected talk  
ASBMR, 2020 Annual Meeting Virtual Event  
2020 Travel Grant, Graduate Student Representative and Travel Committee - IUSM  
2021 Young Investigator Travel Grant, American Society for Bone and Mineral Research (ASBMR)  
ASBMR 2021 Symposium  
San Diego, CA

*Joshua R. Huot, PhD*

2018 Recipient of IUSM Travel Award, Indiana University School of Medicine  
Indianapolis, IN  
2019 Selected talk at IUSCC Research Day 2019  
IUSCC Research Day 2019  
Indianapolis, IN  
2019 Basic Science Research Poster (2<sup>nd</sup> place), IUSCC Research Day 2019  
Indianapolis, IN  
2019 Best Oral Presentation, IUSM Postdoc Symposium  
Indianapolis, IN  
2019 – 2022 Recipient of NIH Comprehensive Musculoskeletal Training Fellowship T32-AR065971 (PI:  
Alexander G. Robling)  
Indiana University School of Medicine  
Indianapolis, IN  
2020 – 2021 Recipient of 2020-2021 David B. Burr Musculoskeletal Fellow Award, Indiana Center for  
Musculoskeletal Health  
Indiana University School of Medicine  
Indianapolis, IN  
2020 Selected talk, Next Generation Researcher in Cancer Cachexia  
Virtual Cancer Cachexia Conference 2020  
2020 Best Poster, IUSM Postdoc Symposium  
Indiana University School of Medicine  
Indianapolis, IN  
2020 – 2021 CTSI Postdoc Challenge Grant (\$5,000), Indiana University School of Medicine  
Indiana University School of Medicine  
Indianapolis, IN  
2021 Selected for Oral Presentation, IUSM Postdoc Symposium  
Indiana University School of Medicine  
Indianapolis, IN  
2021 Basic Science Research Poster (2<sup>nd</sup> place), IUSCC Research Day 2021

CURRICULUM VITAE ANDREA BONETTO, Ph.D.

- Indiana University School of Medicine  
Indianapolis, IN
- 2021 Recipient of IUSCCC Trainee Pilot Award (\$10,000)  
Indiana University School of Medicine  
Indianapolis, IN
- 2022 Best Poster, IUSM Postdoc Symposium  
Indiana University School of Medicine  
Indianapolis, IN
- 2022 Recipient of NIH/NIAMS F32 Fellowship (1F32AR079256-01A1)  
Indiana University School of Medicine  
Indianapolis, IN
- 2022 – pres. Tenure-Track Assistant Professor  
Department of Anatomy, Cell Biology & Physiology  
Indiana University School of Medicine  
Indianapolis, IN

*Leah J. Novinger, MD, PhD*

- 2019 Translational/Clinical Research Poster (3<sup>rd</sup> place), IUSCC Research Day 2019  
Indiana University School of Medicine  
Indianapolis, IN
- 2020 – 2021 Recipient of ICMH Pilot Funding grant (Co-PI, with Andrea Bonetto)  
Indiana University School of Medicine  
Indianapolis, IN

*Alexander J. Jones, MD*

- 2019 Translational/Clinical Research Poster (1<sup>st</sup> place), IUSCC Research Day 2019  
Indiana University School of Medicine  
Indianapolis, IN

*Marelle M. Rukes, MD*

- 2020 Recipient of William H. and Fern L. Hardiman Scholarship, IMPRS-IUSM  
Indiana University School of Medicine  
Indianapolis, IN

*Julian Balanta-Melo, PhD*

- 2022 Recipient of 2022 Charles Turner Award to attend AIMM Meeting, Indiana University  
Indiana University School of Medicine  
Indianapolis, IN
- 2022 Selected for Oral Presentation, IADR/APR General Session  
Virtual

*Chandler S. Callaway, PhD*

- 2023 Recipient of CPMR NIH T32 Program Postdoctoral Fellowship (AR080630, PIs: Zuscik, Payne)  
University of Colorado Anschutz Medical Campus  
Aurora, CO
- 2023 Selected for Communication Award Oral Presentation  
7<sup>th</sup> Cancer Cachexia Conference  
Edinburgh, UK
- 2023 Best Poster Award  
Colorado NORC Cancer Metabolism Workshop  
Aurora, CO
- 2023 Invited Speaker (selected)  
2023 Cancer Biology Retreat  
Keystone, CO

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

2023 Trainee Podium Award Winner  
5<sup>th</sup> Annual Orthopedic Research Symposium and D'Ambrosia Diversity Lectureship  
University of Colorado Anschutz Medical Campus  
Aurora, CO

*Nicholas A. Jamnick, PhD*

2023 Selected for Oral Presentation, Rapid Fire Abstract Session 3  
16<sup>th</sup> International Conference on Cachexia Sarcopenia and Wasting Disorders (SCWD)  
Stockholm, Sweden

2023 Recipient of CPMR NIH T32 Program Postdoctoral Fellowship (CA190216, PIs: Reyland, Cramer)  
University of Colorado Anschutz Medical Campus  
Aurora, CO

**Professional Development**

09/2010 Foundations of Translational Science Bootcamp  
University of Miami, Miami, FL

07/2012 Bone and Skeletal Muscle Interactions Workshop  
Kansas City, MO

10/2013 Responsible Conduct of Research Series – Authorship and Publications  
Indiana University – Office of Research Ethics, Education and Policy  
Indianapolis, IN

11/2013 Responsible Conduct of Research Series – Collaborative Science  
Indiana University – Office of Research Ethics, Education and Policy  
Indianapolis, IN

02/2014 Responsible Conduct of Research Series – Research Misconduct  
Indiana University – Office of Research Ethics, Education and Policy  
Indianapolis, IN

09/2014 Write winning Grant Proposals Workshop  
Indiana University School of Medicine  
Indianapolis, IN

12/2014 Assistant Professor Faculty Development/Mentoring Program  
Effective Teaching Skills  
Office of Research in Surgical Education, Indiana University  
Indianapolis, IN

12/2014 – 11/2019 Independent Investigator Incubator (I3) Program  
Indiana University – CTSI  
Indianapolis, IN

02/2015 Assistant Professor Faculty Development/Mentoring Program  
Designing an Academic Career  
Office of Research in Surgical Education, Indiana University  
Indianapolis, IN

05/2015 Assistant Professor Faculty Development/Mentoring Program  
Promotion and Tenure Guidance  
Office of Research in Surgical Education, Indiana University  
Indianapolis, IN

10/2016 IUPUI Promotion and Tenure Program – Excellence in Research  
Indianapolis, IN

08/2017 Communicating Science Session 1: Connecting with your Audience  
Office of Faculty Affairs and Professional Development, IUSM  
Indianapolis, IN

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

09/2017	Communicating Science Session 2: Distilling Your Message Office of Faculty Affairs and Professional Development, IUSM Indianapolis, IN
09/2017	Communicating Science Session 3: Media Training Office of Faculty Affairs and Professional Development, IUSM Indianapolis, IN
02/2018	IUPUI Promotion and Tenure Program – Personal Statement Indianapolis, IN
03/2018 – 06/2018	Enhancing your scientific career: unlocking your inner mentor Office of Faculty Affairs and Professional Development, IUSM Indianapolis, IN
04/2019	Communicating Science Workshop Alan Alda Center at V Foundation Scholar Summit 2019
10/2021	Think Research Misconduct Allegations Can't Happen to You? Think Again! Small mistakes, big consequences Research Integrity Office, IUSM Indianapolis, IN
04/2022	The culture of research misconduct Research Integrity Office, IUSM Indianapolis, IN
09/2022	Bias awareness training NIH/CSR (virtual)
10/2022	Implicit bias training Office of Research Education, University of Colorado Indianapolis, IN

## **GRANT SUPPORT**

### **Active Research Grants**

Sponsor:	DRP (HNC CO SPORE CA261605)
Title:	Molecular analysis of muscle in head and neck cancer cachexia
Role:	Principal Investigator, 0% effort
Period:	9/1/2023 - 8/31/2024
Amount:	\$50,000 direct costs/year
Sponsor:	NIH/NIAMS (R01AR079379)
Title:	Targeting RANKL for the treatment of muscle and bone defects in cachexia
Role:	Principal Investigator, 25% effort
Period:	7/1/2021 - 12/1/2026
Amount:	\$294,994 direct costs/year, \$1,095,380 total direct costs
Sponsor:	NIH/NIAMS (R01AR080051)
Title:	IGFBP1 mediates a liver-bone-muscle axis in colorectal cancer cachexia
Role:	Principal Investigator, 25% effort
Period:	9/1/2022 - 8/31/2027
Amount:	\$270,412 direct costs/year, \$1,401,112 total direct costs

### **Pending Research Support**

Sponsor:	NIH/NIA (P01AG039355)
Title:	Osteocyte regulation of bone/muscle with aging
Role:	Co-Leader (Project 4), 8% effort
Period:	4/1/2024 - 3/31/2029
Amount:	\$345,611 direct costs/year (Project 4), \$1,999,602 total direct costs
Sponsor:	NIH/NIA (U01AG086194)



*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

Title: Role of osteocyte RANKL in bone to muscle crosstalk in aging  
Role: Co-PI, 20% effort  
Period: 4/1/2024 - 3/31/2029  
Amount: \$396,579 direct costs/year, \$1,982,898 total direct costs  
Sponsor: Colorado HNC SPORE CA261605 - DRP  
Title: Molecular analysis of muscle in head and neck cancer cachexia  
Role: PI  
Period: 9/1/2023 - 8/31/2024  
Amount: \$50,000 direct costs/year

**Completed Research Grants/Fellowships**

Sponsor: NIH/NCI (R21CA190028)  
Title: (PQB-3) Roles of skeletal muscle mass in chemotherapy-associated cachexia  
Role: Principal Investigator, 50% effort  
Period: 9/1/2014 - 8/31/2016  
Amount: \$150,000 direct costs/year, \$275,000 total direct costs  
Sponsor: NIH/NCI (R01CA194593)  
Title: PQB3: Mechanisms & targeting of sonic hedgehog signaling in muscle wasting of cancer cachexia  
Role: Co-Investigator (PI: Teresa Zimmers), 33% effort  
Period: 9/1/2014 - 4/30/2015  
Amount: \$239,714 direct costs/year  
Sponsor: IUSCC Medicinal and Synthetic Chemistry Core - IU Simon Cancer Center  
Title: Synthesis of JAK1/2 inhibitors for pre-clinical testing in models of pancreatic cancer cachexia  
Role: Co-Principal Investigator (with Teresa Zimmers, PhD), 0% effort  
Period: 5/1/2015 - 4/30/2017  
Amount: \$10,000 total direct costs  
Sponsor: CTSI Core Pilot Proposal (UL1TR001108)  
Title: Proteomic profiling of skeletal muscle in chemotherapy-associated cachexia  
Role: Principal Investigator, 0% effort  
Period: 9/1/2015 - 8/31/2017  
Amount: \$10,000 total direct costs  
Sponsor: CTSI Core Pilot Proposal (UL1TR001108)  
Title: Metabolic analysis of chemotherapy-induced cachexia with extracellular flux analysis  
Role: Co-Principal Investigator (with Thomas O'Connell, PhD), 0% effort  
Period: 3/1/2017 - 2/28/2019  
Amount: \$5,000 direct costs  
Sponsor: ICMH Collaborative Pilot Project  
Title: Consequences of TREM2 mutations in bone and muscle  
Role: Co-Principal Investigator (with Lilian Plotkin, PhD), 0% effort  
Period: 7/1/2018 - 6/30/2019  
Amount: \$20,000 direct costs  
Sponsor: Pilot Project Proposal for IUSCC Associate Members  
Title: Novel role for PDK4 in the pathogenesis of cancer- and chemotherapy-associated cachexia  
Role: Principal Investigator, 0% effort  
Period: 12/1/2017 - 11/30/2018 (NCE: 11/30/2019)  
Amount: \$50,000 direct costs  
Sponsor: Research Support Funds Grant Application (RSFG) – IUPUI OVCR  
Title: Muscle derangements in Alzheimer's disease: the role of TREM2 mutations  
Role: Principal Investigator, 0% effort  
Period: 6/1/2019 - 5/31/2020  
Amount: \$35,000 direct costs  
Sponsor: V Foundation Scholar Grant (V2017-021)  
Title: Mechanisms and treatment of chemotherapy-induced cachexia and muscle weakness  
Role: Principal Investigator, 20% effort

*CURRICULUM VITAE ANDREA BONETTO, Ph.D.*

Period: 11/1/2017 - 10/30/2019 (NCE: 10/30/2020)  
Amount: \$100,000 direct costs/year, \$200,000 total direct costs  
Sponsor: Showalter Young Investigator Award (Showalter Trust)  
Title: Face and construct validity of new preclinical models of metastatic colorectal cancer  
Role: Principal Investigator, 2% effort  
Period: 7/1/2018 - 6/30/2019 (NCE: 6/30/2020)  
Amount: \$50,000 direct costs  
Sponsor: American Cancer Society (132013-RSG-18-010-01-CCG)  
Title: Mechanisms of chemotherapy-induced muscle weakness and fatigue  
Role: Principal Investigator, 25% effort  
Period: 7/1/2018 - 6/30/2022 (NCE: 6/30/2023)  
Amount: \$165,000 direct costs/year, \$660,000 total direct costs  
Sponsor: ICMH Pilot Funding  
Title: Functional and molecular analysis of muscle in patients with and without head and neck cancer cachexia  
Role: Principal Investigator, 0% effort  
Period: 1/1/2020 - 12/31/2020  
Amount: \$47,000 direct costs  
Sponsor: Bridge Funding Grant Application (IUPUI OVCR)  
Title: FGF10 and the skeletal muscle consequences of osteocytic miR21 deletion  
Role: Co-Investigator, 0% effort  
Period: 7/1/2020 - 6/30/2021  
Amount: \$45,000 direct costs  
Sponsor: Faraday Pharmaceuticals, Inc.  
Title: Effects of FDY-5301 on the preservation of muscle mass and function in cachexia  
Role: Principal Investigator, 0.15% effort  
Period: 7/1/2020 - 6/30/2021  
Amount: \$43,468 direct costs  
Sponsor: IUSCC TMM Pilot Grant  
Title: Gene expression profile of liver and tumor in metastatic colorectal cancer cachexia  
Role: Principal Investigator, 0% effort  
Period: 1/1/2021 - 12/31/2022  
Amount: \$4,500 direct costs  
Sponsor: IUSCCC TMM Shark Tank Pilot Proposal  
Title: CD14, a liver-derived mediator of muscle wasting in cancer cachexia  
Role: Co-Investigator (PI: Tewfik Hamidi), 0% effort  
Period: 10/1/2021 - 09/30/2022  
Amount: \$50,000 direct costs  
Sponsor: NIH/NIAMS (F32AR079256-01A1)  
Title: FGF21-IGFBP1 axis mediates musculoskeletal deficits in colorectal cancer cachexia  
Role: Co-Sponsor/Mentor (PI: Joshua Huot), 0% effort  
Period: 6/1/2022 - 09/30/2022  
Amount: \$23,267 direct costs

## **BIBLIOGRAPHY**

Peer reviewed publications: **69 total** (14 as first author, 27 as senior author, 28 as co-author)  
h-index: **30**  
i10-index: **48**  
citations: **3845 (6/10/2023)**  
[Google Scholar Profile](#)

## **Research Articles**

1. Costelli P, Muscaritoli M, Bossola M, Penna F, Reffo P, **Bonetto A**, Busquets S, Bonelli G, Lopez-Soriano FJ, Doglietto GB, Argilés JM, Baccino FM, Rossi Fanelli F. IGF-1 is down-regulated in experimental cancer cachexia. *Am J Physiol Regul Integr Comp Physiol*, 291: 674-83 (2006) [PMID: 16614058](#)
2. Costelli P, Muscaritoli M, **Bonetto A**, Penna F, Reffo P, Bossola M, Bonelli G, Doglietto GB, Baccino FM, Rossi Fanelli F. Muscle myostatin signaling is enhanced in experimental cancer cachexia. *Eur J Clin Invest*, 38(7): 531-8 (2008) [PMID: 18578694](#)
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#### **Book Chapters, Invited Articles and Reviews**

1. Costelli P, Muscaritoli M, Penna F, **Bonetto A**, Minero VG, Iannuzzi S, Aversa Z, Bonelli G, Baccino FM, Rossi Fanelli F. Nutritional support in cancer. *Curr Nutr Food Sci*, 3: 242-8. [doi: 10.2174/157340107781369198](#) (2007)
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**Scientific Abstracts Published or Presented at Scientific Meetings**

**126** total, **16** as first author, **57** as senior author, **20** as oral presentations (myself or trainee)

1. Penna F, Reffo P, **Bonetto A**, Bossola M, Muscaritoli M, Bonelli G, Doglietto GB, Rossi Fanelli F, Costelli P, Baccino FM. Modulations of myostatin in cancer cachexia. Conference Cachexia in Aging and Cancer, Chicago, IL (**2004**) Poster
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11. Penna F, Reffo P, Bonetto A, Costelli P, Muscaritoli M, Bossola M, Bonelli G, Doglietto GB, Rossi Fanelli F, Baccino FM. Myostatin pathway: from experimental cancer cachexia to cancer patients. 3<sup>rd</sup> Cachexia Conference, Rome, Italy (**2005**) Poster
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22. Iannuzzi S, Costelli P, Merli M, **Bonetto A**, Gentili F, Rossi M, Aversa S, Sonni PV, Giusto M, Tommasi V, Rossi Fanelli F, Muscaritoli M. Pathogenic mechanisms of muscle loss in patients undergoing liver transplantation. 4th Cachexia Conference, Tampa, FL **(2007)** Poster
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24. Penna F, **Bonetto A**, Reffo P, Minero VG, Bonelli G, Baccino FM, Costelli P. Myostatin blockade by deacetylase inhibitors fails to counteract muscle wasting in tumor-bearing mice. 29th National Congress of Società Italiana di Patologia (Italian Society of Pathology), Rende **(2008)** Poster
25. Assereto S, **Bonetto A**, Mastrototaro M, Sotgia F, Bruno C, Lisanti MP, Frigeri A, Minetti C, Gazzo E. Potenziale terapeutico dell'inibizione del proteasoma nella Distrofia Muscolare di Duchenne. 9th National Congress Associazione Italiana di Miologia (Italian Myology Association), Verona, Italy **(2009)** Poster
26. Penna F, Costamagna D, **Bonetto A**, Minero VG, Baccino FM, Costelli P. ERK inhibition prevents muscle atrophy in experimental cancer cachexia. 5th Cachexia Conference, Barcelona, Spain **(2009)** Poster
27. **Bonetto A**, Assereto S, Sotgia F, Bonuccelli G, Bruno C, Zara F, Lisanti MP, Minetti C. Therapeutic potential of proteasome inhibition in Duchenne Muscular Dystrophy. 5th Cachexia Conference, Barcelona, Spain **(2009)** Poster
28. Muscaritoli M, Aversa Z, **Bonetto A**, Penna F, Costelli P, Rossi Fanelli F. Myostatin signalling in lung and gastric cancer patients. 5th Cachexia Conference, Barcelona, Spain **(2009)** Poster
29. **Bonetto A**, Aydogdu T, Pedroso FE<sup>†</sup>, Spaulding PB, Puzis L, Koniaris LG, Zimmers TA. SOCS3 overexpression counteracts the IL-6/STAT3 signaling pathways and improves muscle wasting in experimental cachexia. 6<sup>th</sup> Cachexia Conference, Milan, Italy **(2011)** Poster
30. Pedroso FE, Spaulding PB, Cheung MC, Yang R, **Bonetto A**, Chan HL, Zhang Z, Jin X, Koniaris LG, Zimmers TA. The pathophysiological course of burn-injury associated cachexia: a new murine model. 6<sup>th</sup> Cachexia Conference, Milan, Italy **(2011)** Poster
31. Geiger B, **Bonetto A**, Zimmers TA. Colo-205 Cells Induce Wasting in Mice and Myotubes: a New Model of Colon Cancer Cachexia. STEP-UP Research Symposium, Bethesda, MD **(2012)** Oral (Geiger)
32. **Bonetto A**, Chan HL, Zhan R, Pedroso FE, Koniaris LG, Zimmers TA. High-fat diet and obesity exacerbate muscle wasting in experimental cancer cachexia. Cancer Cachexia Conference: Molecular Mechanisms and Therapeutic Approaches, Boston, MA **(2012)** Poster
33. **Bonetto A**, Aydogdu T, Camperi A, Koniaris LG, Zimmers TA. SOCS3 affects muscle growth and differentiation and contributes to rescue muscle wasting in experimental cachexia. Postdoctoral Research Symposium, Thomas Jefferson University, Philadelphia, PA **(2013)** Poster



34. **Bonetto A**, Puppa MJ, Carson JA, Zimmers TA. The ES-2 ovarian cancer causes muscle wasting in vitro and in vivo: A novel experimental model of cancer cachexia. AACR – Advances in ovarian cancer research: from concept to clinic, Miami, FL (2013) Poster
35. **Bonetto A**, Zimmers TA. KLF-4: a novel target to prevent tumor-induced muscle wasting? Advances in skeletal muscle biology in health and disease, Gainesville, FL (2014) Poster
36. Goodwin C, **Bonetto A**, Au ED, Zhang Z-Y, Zimmers TA. A novel Shp-2 pharmacologic inhibitor promotes muscle growth *in vitro*. Summer Student Research Symposium, IUPUI, Indianapolis, IN (2014) Poster
37. Parker VM, Matthews RR, **Bonetto A**, Puppa MJ, Kang KS, Carson JA, Guise TA, Mohammed KS, Robling AG, Koniaris LG, Zimmers TA. Varying Severity of Bone Loss in Mouse Models of Colorectal Cancer Cachexia. 2<sup>nd</sup> Cancer Cachexia Conference, Montreal, Canada (2014) Poster
38. **Bonetto A**, Puppa MJ, Carson JA, Matei DE, Koniaris LG, Zimmers TA. IL-6 and IL-11 mediate muscle wasting in ovarian cancer cachexia. 2<sup>nd</sup> Cancer Cachexia Conference, Montreal, Canada (2014) Poster
39. **Bonetto A**, Aydogdu T, Camperi A, Costelli P, Koniaris LG, Zimmers TA. SOCS3 is a bi-functional buffer of muscle growth and wasting. 2<sup>nd</sup> Cancer Cachexia Conference, Montreal, Canada (2014) Poster
40. **Bonetto A**, Camperi A, Aydogdu T, Pons M, Au ED<sup>†</sup>, Koniaris LG, Zimmers TA. SOCS3 is a novel bi-functional regulator of muscle growth and wasting. IUPUI Research Day 2015, IUPUI, Indianapolis, IN (2015) Poster
41. **Bonetto A**, Muscaritoli M, Lucia S, Verzaro R, Koniaris LG, Zimmers TA. Inhibition of IL-6 and IL-11 prevents cachexia in colorectal cancer. IUSCC Research Day, Indianapolis, IN (2015) Poster
42. Parker VA, Matthews RR, **Bonetto A**, Puppa M, Kang KS, Carson J, Guise TA, Mohammed KS, Robling AG, Koniaris LG, Zimmers TA. Varying severity of bone loss in mouse models of colorectal cancer cachexia. 8<sup>th</sup> Cachexia Conference, Paris, France (2015) Poster
43. **Bonetto A**. Mitochondrial depletion and MAPKs activation are associated with the occurrence of muscle loss and fatigue: a potential mechanism for chemotherapy-associated cachexia. 8<sup>th</sup> Cachexia Conference, Paris, France (2015) Oral (Bonetto)
44. Barreto R, Waning DL, Gao H, Liu Y, Zimmers TA, **Bonetto A**. MAPKs activation and mitochondrial depletion are associated with chemotherapy-related cachexia. IUPUI Research Day 2016, Indianapolis, IN (2016) Poster
45. Barreto R, Mandili G, Witzmann FA, Novelli F, Zimmers TA, **Bonetto A**. Skeletal muscle proteome in cancer cachexia vs. chemotherapy-induced cachexia: so close, yet so far. IUSCC Research Day, Indianapolis, IN (2016) Poster
46. Barreto R, Waning DL, Gao H, Liu Y, Zimmers TA, **Bonetto A**. Chemotherapy contributes to the occurrence of cachexia by promoting mitochondrial depletion and by inducing the activation of ERK1/2 and p38 MAPKs. Indiana Musculoskeletal Symposium, Indianapolis, IN (2016) Poster
47. Barreto R, Mandili G, Waning DL, Witzmann FA, Novelli F, Zimmers TA, **Bonetto A**. Cancer-induced cachexia vs. chemotherapy-associated cachexia: two sides of the same coin? 3<sup>rd</sup> Cancer Cachexia Conference, Washington, DC (2016) Oral (Bonetto)
48. Zimmers TA, Jiang Y, Liu J, Ceppa E, Nakeeb A, House M, Zyromski N, Schmidt CM, Hannaford K, Schloss D, Brooks C, Radovich M, Liu Y, Jinag G, Koniczny SF, Schweickert P, Hancock B, Kayes J, Rupert J, Zhong X, Poirier C, Au E, **Bonetto A**, Shahda S, Kphli M, O'Neil B, Pons M, Koniaris M. Of mice and men and pancreatic cancer cachexia. 3<sup>rd</sup> Cancer Cachexia Conference, Washington, DC (2016) Poster
49. O'Connell TM, Barreto R, Couch ME, **Bonetto A**. Chemotherapy and cancer-induced cachexia yield distinct metabolic perturbations. Advances in skeletal muscle biology in health and disease, Gainesville, FL (2017) Poster
50. **Bonetto A**, Barreto R, Couch ME, O'Connell TM. Chemotherapy and cancer-induced cachexia yield distinct metabolic perturbations. IUSCC Research Day, Indianapolis, IN (2017) Poster
51. Pin F, Barreto R, Couch ME, O'Connell TM, **Bonetto A**. Cancer- and chemotherapy-induced cachexia yield distinct metabolic perturbations. Indiana Center for Musculoskeletal Health Retreat 2017, Indianapolis, IN (2017) Poster
52. Pin F, Barreto R, Couch ME, O'Connell TM, **Bonetto A**. Cancer- and chemotherapy-induced cachexia yield distinct metabolic perturbations. IUSM Postdoctoral Research Day 2017, Indianapolis, IN (2017) Poster

53. Pin F, Barreto R, Couch ME, O'Connell TM, **Bonetto A**. Cancer- and chemotherapy-induced cachexia yield distinct metabolic perturbations. 10<sup>th</sup> Cachexia Conference, Rome, Italy (2017) Poster
54. Barreto R, Kitase Y, Matsumoto T, Prideaux M, Pin F, Colston KC, Couch KE, Couch ME, O'Connell TM, Bonewald LF, **Bonetto A**. ACVR2B/Fc counteracts chemotherapy-induced loss of muscle and bone mass. 10<sup>th</sup> Cachexia Conference, Rome, Italy (2017) Poster
55. Pin F, Barreto R, Couch ME, **Bonetto A**, O'Connell TM. Development of a Metabolic Biomarker Panel for the Early Detection of Cancer Cachexia. 10<sup>th</sup> Cachexia Conference, Rome, Italy (2017) Poster
56. Pin F, Erne CE, Couch ME, Bonewald LF, O'Connell TM, **Bonetto A**. Modulation of PDK4 drives metabolic alterations and skeletal muscle atrophy during cancer cachexia. IUSCC Research Day, Indianapolis, IN (2018) Poster
57. Erne CE, Barreto R, Wang M, Pin F, Waning DL, **Bonetto A**. Chronic treatment with multi-kinase inhibitors promotes growth retardation and cachexia-like symptoms. IUSCC Research Day, Indianapolis, IN (2018) Poster
58. Pin F, Bonewald LF, Couch ME, O'Connell TM, **Bonetto A**. PDK4 drives metabolic alterations and skeletal muscle atrophy in cancer cachexia. 4<sup>th</sup> Cancer Cachexia Conference, Philadelphia, PA (2018) Oral (Bonetto)
59. Pin F, Couch ME, **Bonetto A**, O'Connell TM. Metabolic reprogramming by dichloroacetate mitigates muscle wasting in cancer cachexia. 4<sup>th</sup> Cancer Cachexia Conference, Philadelphia, PA (2018) Poster
60. Essex AL, Davis H, Pin F, Plotkin LI, **Bonetto A**. Rescuing age-associated decline in muscle mass by inhibition of the receptor for advanced glycosylation end products, RAGE. ASBMR, Montreal, Quebec, Canada (2018) Poster
61. Pin F, Herndon D, **Bonetto A**, Finnerty C, Nieten C, Bonewald LF, Klein G. Mechanisms responsible for Pamidronate rescue of post-burn muscle loss in children. ASBMR, Montreal, Quebec, Canada (2018) Poster
62. Huot JR, Novinger LJ, Pin F, O'Connell TM, **Bonetto A**. Face and construct validity of a new preclinical model of metastatic colorectal cancer. Advances in Skeletal Muscle Biology in Health and Disease, Gainesville, FL (2019) Poster
63. Essex AL, Davis HM, Plotkin LI, **Bonetto A**. Rescuing age-associated decline in muscle mass by inhibition of the receptor for advanced glycosylation end products, RAGE. Advances in Skeletal Muscle Biology in Health and Disease, Gainesville, FL (2019) Poster
64. Pin F, Couch ME, **Bonetto A**, O'Connell TM. Treatment with soluble activin receptor type IIB alters metabolic response in chemotherapy-induced cachexia. Advances in Skeletal Muscle Biology in Health and Disease, Gainesville, FL (2019) Poster
65. Huot JR, Novinger LJ, Pin F, Essex AL, Jones AJ, O'Connell TM, **Bonetto A**. Metastatic colorectal cancer induces musculoskeletal and metabolic abnormalities. IUSCC Research Day, Indianapolis, IN (2019) Oral (Huot)
66. Pin F, Bonewald LF, **Bonetto A**. Effects of RANKL producing compared to non-RANKL producing tumors on muscle and bone. IUSCC Research Day, Indianapolis, IN (2019) Poster
67. Jones AJ, Alwani M, Novinger LJ, Pittelkow E, **Bonetto A**, Sim MW, Moore MG, Mantravadi AV. Impacts of sarcopenia on post-operative outcomes of autologous free tissue transfer in head and neck reconstruction. IUSCC Research Day, Indianapolis, IN (2019) Poster
68. Novinger LJ, Jones AJ, Pin F, Huot JR, Essex AL, **Bonetto A**, Moore M. Characterization of cancer cachexia in head and neck cancer patients undergoing free flap reconstruction. IUSCC Research Day, Indianapolis, IN (2019) Poster
69. O'Connell TM, Pin F, Couch ME, **Bonetto A**. ACVR2B antagonism restores skeletal muscle mass and cardiac function in metastatic colorectal cancer cachexia. IUSCC Research Day, Indianapolis, IN (2019) Poster
70. Huot JR, Novinger LJ, Pin F, Essex AL, Willis MS, **Bonetto A**. Treatment with soluble activin receptor type IIB alters metabolic response in chemotherapy-induced cachexia. Gordon Research Conference – Myogenesis, Lucca, Italy (2019) Poster
71. Huot JR, Novinger LJ, Pin F, Essex AL, Jones AJ, Willis MS, **Bonetto A**. ACVR2B antagonism restores skeletal muscle mass and cardiac function in metastatic colorectal cancer cachexia. Bone and muscle interactions: the mechanical and beyond. Indianapolis, IN (2019) Poster

72. Pin F, Huot JR, Essex AL, Jones AJ, Bonewald LF, **Bonetto A**. Preservation of bone mass by anti-resorptive treatments improves skeletal muscle mass and function in a non-metastatic model of cancer cachexia. Bone and muscle interactions: the mechanical and beyond. Indianapolis, IN (2019) Poster
73. Essex AL, Davis H, Deosthale P, **Bonetto A**, Plotkin LI. Lack of osteocytic miR21 promotes skeletal muscle mass and growth in a sex-specific manner. Bone and muscle interactions: the mechanical and beyond. Indianapolis, IN (2019) Oral (Essex)
74. Jengelly D, Wang M, **Bonetto A**, Robling A, Zimmers TA. Musculoskeletal effects of Oncostatin M. Bone and muscle interactions: the mechanical and beyond. Indianapolis, IN (2019) Poster
75. Rupert J, **Bonetto A**, Narasimhan A, Koniaris L, Zimmers TA. IL-6 trans-signaling among tumor, muscle and fat mediates pancreatic cancer cachexia. Bone and muscle interactions: the mechanical and beyond. Indianapolis, IN (2019) Poster
76. Pin F, Bonewald LF, **Bonetto A**. Effects of RANKL producing compared to non-RANKL producing tumors on muscle and bone. ASBMR, Orlando, FL (2019) Poster
77. Essex AL, Davis H, Deosthale P, **Bonetto A**, Plotkin LI. Lack of osteocytic-miR21 drives sex-specific skeletal muscle phenotype. ASBMR, Orlando, FL (2019) Poster
78. Jones JJ, Campiti VJ, Alwani M, Novinger LJ, **Bonetto A**, Sim MW, Moore MG, Mantravadi AV. Low Skeletal Muscle Mass Predicts Discharge Disposition After Free Flap Reconstruction in Head and Neck Cancer Patients. Multidisciplinary HNC Symposium, Scottsdale, AZ (2019) Poster
79. **Bonetto A**. Musculoskeletal complications of cancer and its treatments. 12<sup>th</sup> Cachexia Conference, Berlin, Germany (2019) Oral (Bonetto)
80. Gun H, Huot JR, Pin F, **Bonetto A**, Nader GA. Muscle wasting in cancer involves suppression of ribosomal production and increased expression of the ribophagy receptor NUFIP1. 12<sup>th</sup> Cachexia Conference, Berlin, Germany (2019) Poster
81. Huot JR, Novinger LJ, Pin F, Narasimhan A, Essex AL, Zimmers TA, Willis MS, **Bonetto A**. Blockade of ACVR2B preserves skeletal and cardiac muscle function in the presence of metastatic colorectal cancer. 12<sup>th</sup> Cachexia Conference, Berlin, Germany (2019) Poster
82. Pin F, Bonewald LF, **Bonetto A**. Cachexia induced by non-bone metastatic cancers is accompanied by bone, cartilage and bone marrow destruction. 12<sup>th</sup> Cachexia Conference, Berlin, Germany (2019) Oral (Pin)
83. Kim H-G, Huot JR, Pin F, **Bonetto A**, Nader GA. Muscle Wasting in Cancer Involves Suppression of Ribosomal Production and Increased Expression of the Ribophagy Receptor NUFIP1. Experimental Biology 2020, San Diego, CA (2020) Poster
84. Essex AL, Deosthale P, Wagner A, Damrath JD, Wallace J, Willis M, **Bonetto A**, Plotkin LI. Beyond the Brain: Neurodegeneration risk-factor TREM2 R47H mutation causes distinct sex-dependent bone and cardiovascular phenotype in the absence of neuropathology. ASBMR Virtual Meeting (2020) Poster
85. Pin F, Kitase Y, Shimonty A, Huot JR, Smargiassi A, **Bonetto A**, Bonewald LF. The L- enantiomer of beta-aminoisobutyric acid (BAIBA), a contracting muscle metabolite, has positive effects on muscle in vitro and in vivo. ASBMR Virtual Meeting (2020) Poster
86. Pin F, Huot JR, Prideaux M, Bonewald LF, **Bonetto A**. Non-bone metastatic cancers promote osteocytic bone destruction. ASBMR Virtual Meeting (2020) Poster
87. Pin F, Jones AJ, Huot JR, Narasimhan A, Zimmers TA, Bonewald LF, **Bonetto A**. RANKL blockade reduces cachexia and bone loss induced by non-metastatic cancer. 2020 Cancer Cachexia Virtual Meeting (2020) Poster
88. Huot JR, Pin F, Narasimhan A, Novinger LJ, Keith A, Zimmers TA, Willis M, **Bonetto A**. ACVR2B antagonism as a countermeasure to multi-organ perturbations in metastatic colorectal cancer cachexia. 2020 Cancer Cachexia Virtual Meeting (2020) Oral (Huot)
89. Jones AJ, Novinger LJ, Shariff F, Rukes M, Campiti V, Davis K, Moore M, **Bonetto A**. The correlation of cachexia and radiographic bone density in head and neck cancer patients. 2020 Cancer Cachexia Virtual Meeting (2020) Poster

90. Jones AJ, Novinger LJ, Rukes M, Campiti V, Davis K, **Bonetto A**, Moore M, Yesensky J. The association of cachexia with head and neck cancer burden and pathologic features. 2020 Cancer Cachexia Virtual Meeting (2020) Poster
91. Narasimhan A, Zhong X, Jengelley DHA, Huot JR, Wang M, Rupert JE, Young AR, **Bonetto A**, Liu Y, Koniaris LG, Fishel ML, Kelley MR, Zimmers TA. Gemcitabine and nab-paclitaxel reduce tumor burden and preserve muscle and cardiac functions in murine model of PDAC cachexia Cancer Cachexia Virtual Meeting (2020) Poster
92. Pin F, Jones AJ, Huot JR, Narasimhan A, Zimmers TA, Bonewald LF, **Bonetto A**. RANKL blockade reduces cachexia and bone loss induced by non-metastatic cancer. 2020 IUSM Postdoc Symposium (2020) Oral (Pin)
93. Huot JR, Pin F, Narasimhan A, Novinger LJ, Keith A, Zimmers TA, Willis M, **Bonetto A**. ACVR2B antagonism as a countermeasure to multi-organ perturbations in metastatic colorectal cancer cachexia. 2020 IUSM Postdoc Symposium (2020) Poster
94. Rupert JE, Huot JR, Narasimhan A, Jengelley DHA, **Bonetto A**, Zimmers TA. PKC-theta modulates myosteatosis, muscle function, atrophy, and survival in murine pancreatic ductal adenocarcinoma. 2021 AACR Annual Meeting (2020) Poster
95. Huot JR, Pin F, Essex AL, **Bonetto A**. Mitochondria-targeted strategies ameliorate chemotherapy-induced cachexia. "Confronting cachexia – a disease within a disease", New York Academy of Sciences Webinar (2021) Oral (Bonetto)
96. Jheng J-R, Noda K, Halliday G, Bai Y, Huot JR, Cook T, Goncharov DA, Goncharova EA, Simon M, Forman D, Rojas M, **Bonetto A**, Machado RF, Gladwin MT, Lai Y-C. Skeletal Muscle SIRT3 Deficiency-mediated LOXL2 Secretion in Remote Pulmonary Vascular Remodeling and Pulmonary Hypertension in Heart Failure with Preserved Ejection Fraction. AHA Meeting 2021 (2021) Poster
97. Rupert JE, Huot JR, **Bonetto A**, Narasimhan A, Koniaris LG, Mosley A, Zimmers TA. Deletion of PKC-theta in mice with PDAC is associated with increased survival, increased in vivo muscle force production, decreased muscle wasting, and reduced expression of Pdk4 in skeletal muscle. Cancer Cachexia Conference (virtual) (2020) Poster
98. Rupert JE, Jengelley DHA, **Bonetto A**, Carvalho RF, Cury SS, Koniaris LG, Zimmers TA. Functions of Leukemia Inhibitory Factor (LIF) in pancreatic cancer. Cancer Cachexia Conference (virtual) (2020) Poster
99. Pin F, Huot JR, Bonewald LF, **Bonetto A**. Mitochondria-targeting agent MitoQ improves muscle atrophy, weakness and oxidative metabolism in C26 tumor-bearing mice. Cancer Cachexia Conference (virtual) (2020) Poster
100. Pin F, Jones AJ, Huot JR, Narasimhan A, Zimmers TA, Bonewald LF, **Bonetto A**. RANKL blockade reduces cachexia and bone loss induced by non-metastatic cancer. ASBMR 2021 Annual Meeting, San Diego, CA (2021) Poster
101. Essex LA, Deosthale P, Wagner A, Figueras J, Davis A, Damrath JD, Liu Z, Wallace J, **Bonetto A**, Plotkin LI. Brain to bone: neurodegeneration risk-factor TREM2 R47H mutation accelerates bone loss and then stalls out in female mice. ASBMR 2021 Annual Meeting, San Diego, CA (2021) Oral (Essex)
102. Pin F, Huot JR, Bonewald LF, **Bonetto A**. Mitochondria-targeting agent MitoQ improves muscle atrophy, weakness and oxidative metabolism in C26 tumor-bearing mice. IUSCCC Research Day (2021) Poster
103. Huot JR, Pin F, Essex LA, **Bonetto A**. IGFBP1 as a mediator of musculoskeletal deficits in colorectal cancer cachexia. IUSCCC Research Day (2021) Poster
104. Pin F, Jones AJ, Huot JR, Narasimhan A, Zimmers TA, Bonewald LF, **Bonetto A**. RANKL blockade reduces cachexia and bone loss induced by non-metastatic cancer. XXXVI Annual Meeting, Sociedad Chilena de Ciencias Fisiológicas (2021) Oral (Bonetto)
105. Balanta-Melo J, Jones AJ, Moore MG, **Bonetto A**. Masseter thickness index as an anthropometric prognostic biomarker in head & neck cancer cachexia: a retrospective pilot study. Advances in Mineral Metabolism (AIMM) Meeting, Snowmass, CO (2022) Oral (Balanta)
106. Kim H-G, Huot JR, Pin F, **Bonetto A**, Nader GA. Divergent anabolic deficits and pro-inflammatory effectors of muscle wasting in xenograft and metastatic tumor models of colorectal cancer. Experimental Biology 2022, Philadelphia, PA (2022) Poster

107. Balanta-Melo J, Jones AJ, Moore MG, **Bonetto A.** Masseter thickness as biomarker in head and neck cancer cachexia. IADR/APR General Session (2022) Oral (Balanta)
108. Balanta-Melo J, Jones AJ, Moore MG, **Bonetto A.** Masseter thickness as biomarker in head and neck cancer cachexia: a retrospective pilot study. 15<sup>th</sup> International SCWD Conference (2022) Poster
109. Pin F, Huot JR, Shimonty A, **Bonetto A.**, Bonewald LF. Deletion of FNDC5/Irisin protects against cancer-induced cachexia syndrome. 15<sup>th</sup> International SCWD Conference (2022) Oral (Pin)
110. Huot JR, Pin F, Chatterjee R, **Bonetto A.** Overexpression of skeletal muscle PGC1a protects against cisplatin-induced cachexia. 15<sup>th</sup> International SCWD Conference (2022) Poster
111. Huot JR, Pin F, **Bonetto A.** Abnormal liver-bone-muscle axis in cancer cachexia. 15<sup>th</sup> International SCWD Conference (2022) Oral (Bonetto)
112. Huot JR, Pin F, **Bonetto A.** IGFBP1 mediates musculoskeletal deficits in colorectal cancer. International Conference on Muscle Wasting. Ascona, Switzerland (2022) Oral (Bonetto)
113. Callaway CS, Huot JR, Pin F, **Bonetto A.** Formation of liver metastases enhances the pro-cachectic signaling in colorectal cancer hosts. Advances in Skeletal Muscle Biology. Gainesville, FL (2023) Poster
114. Huot JR, Pin F, **Bonetto A.** IGFBP1 mediates musculoskeletal defects in colorectal cancer. Advances in Skeletal Muscle Biology. Gainesville, FL (2023) Poster
115. Callaway CS, Huot JR, Pin F, **Bonetto A.** Formation of liver metastases enhances the pro-cachectic signaling in colorectal cancer hosts. Department of Pathology Research Day. University of Colorado Anschutz Medical Campus (2023) Poster
116. Huot JR, Pin F, **Bonetto A.** IGFBP1 mediates musculoskeletal defects in colorectal cancer. Department of Pathology Research Day. University of Colorado Anschutz Medical Campus (2023) Poster
117. Huot JR, Pin F, **Bonetto A.** IGFBP1 mediates musculoskeletal defects in colorectal cancer. AACR Meeting 2023. Orlando, FL (2023) Oral (Bonetto)
118. Callaway CS, Huot JR, Pin F, **Bonetto A.** Liver metastases enhance the pro-cachectic signaling in colorectal cancer hosts. 16<sup>th</sup> International SCWD Conference. Stockholm, Sweden (2023) Oral (Bonetto)
119. Huot JR, Pin F, Jamnick NA, Livingston PD, **Bonetto A.** Long-term musculoskeletal consequences of chemotherapy in pediatric mice. 16<sup>th</sup> International SCWD Conference. Stockholm, Sweden (2023) Poster
120. Huot JR, Jamnick NA, Livingston PD, Pin F, **Bonetto A.** Growth of GL261 glioblastoma tumors induced delayed body weight gain and stunted skeletal muscle growth in pediatric mice. 16<sup>th</sup> International SCWD Conference. Stockholm, Sweden (2023) Poster
121. Balanta-Melo J, Jones AJ, Moore MG, **Bonetto A.** Sexual dimorphism in masseter thickness as anthropometric prognostic biomarker in head & neck cancer cachexia: a retrospective cross-sectional study. 16<sup>th</sup> International SCWD Conference. Stockholm, Sweden (2023) Poster
122. Callaway CS, Huot JR, Pin F, **Bonetto A.** Formation of liver metastases enhances the pro-cachectic signaling in colorectal cancer hosts. 7<sup>th</sup> Cancer Cachexia Conference. Edinburgh, UK (2023) Poster
123. Huot JR, Pin F, Jamnick NA, Livingston PD, **Bonetto A.** Pediatric mice exposed to chemotherapy present persistent muscular consequences. 7<sup>th</sup> Cancer Cachexia Conference. Edinburgh, UK (2023) Poster
124. Huot JR, Jamnick NA, Livingston PD, Pin F, **Bonetto A.** GL261 glioblastoma causes delayed body weight gain and stunted skeletal muscle growth in pediatric mice. 7<sup>th</sup> Cancer Cachexia Conference. Edinburgh, UK (2023) Poster
125. Balanta-Melo J, Jones AJ, Moore MG, **Bonetto A.** Sexual dimorphism in masseter thickness as anthropometric prognostic biomarker in head & neck cancer cachexia. 7<sup>th</sup> Cancer Cachexia Conference. Edinburgh, UK (2023) Poster
126. Huot JR, Pin F, Shimonty A, **Bonetto A.** The tumor-liver axis as a mediator of cancer-induced musculoskeletal wasting. 7<sup>th</sup> Cancer Cachexia Conference. Edinburgh, UK (2023) Poster
127. Jones AJ, Shimonty A, Huot JR, **Bonetto A.**, Bonewald LF, Marks D, Moore MG, Pin F. Non-bone metastatic Head and Neck Cancer promote osteocyte changes in patients and mice bearing the MLM3 HNC cells. ASBMR Annual Meeting 2023. Vancouver, Canada. Poster