

ANTONELLA BONETTI

Assistant Professor

Personal Information

Born in Udine on December 31, 1976

Italian Citizenship

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Current Position

**UNIVERSITY OF UDINE**

**DEPARTMENT OF MEDICINE**

**ASSISTANT PROFESSOR - BIO/17 HISTOLOGY**

Education and Training

Since a.y. 2008/2009 to date  
**University of Udine  
Assistant Professor**

Department of Medicine  
Histology&Embryology

a.y. 2004/2005  
**University of Udine  
PhD Degree - cycle XVII - Biomedical and Biotechnological Sciences**

Department of Medical and Morphological Research  
Histology&Embryology

a.y. 2000/2001  
**University of Trieste  
Degree in Biological Sciences**

Department of Physiology and Pathology  
Pathology

s.y. 1993/1994

**High School Degree**

Teaching Institute

Udine

Academic Role

Since a.y. 2016/2017 to date

**University of Udine  
Member and vice president of the “Internal Review Board”**

Department of Medicine

Since a.y. 2013/2014 to a.y. 2015/2016  
**University of Udine  
Member of the “Internal Review Board”**

Department of Medical, Experimental and Clinical Sciences

Teaching

Course of **Histology**:

- Physical Education

- Obstetrics

- Biomedical Laboratory Techniques

- Nursing

Course of **Embryology**:

- Biotechnologies

- Biotechnologies (master degree)

- Obstetrics

Research

Main research topics:

Valve Calcification:

- onset and progression of calcific processes experimentally induced in vivo

- onset and progression of the calcific process in pathological heart valves

- set up of cellular pro-calcific models in vitro

Valve Regeneration:

- cell repopulation of aortic valve scaffolds in vitro and in vivo

- improvement of heart valve decellularization methods

Myocardium:

- effects of hypothermic and normothermic preservation of explanted hearts

- interleukin-1 receptor antagonist (IL-1ra) expression in ischemic cardiomyopathy

Oocyte Cryopreservation:

- effects of vitrification on human oocytes destined to assisted reproduction procedures

Scientific Meetings

Speaker at scientific meetings of national (Società Italiana di Anatomia e Istologia, SIAI; Società Italiana di Istochimica, SII; Società Italiana per lo Studio del Connettivo, SISC) and international (Latin Meeting on Vascular Research, LIAC; Federation of the European Connective Tissue Societies, FECTS) relevance

References

Main publications:

- **Bonetti A**, Contin M, Marchini M, Ortolani F. Ultrastructural and immunohistochemical detection of hydroxyapatite nucleating role by rRNA and nuclear chromatin derivatives in aortic valve calcification: in vitro and in vivo pro-calcific animal models and actual calcific disease in humans. Int J Mol Sci, 2023, 24: 2667.

- Sponga S, **Bonetti A**, Ferrara V, Beltrami AP, Isola M, Vendramin I, Finato N, Ortolani F, Livi U. Preservation by cold storage vs ex vivo normothermic perfusion of marginal donor hearts: clinical, histopathologic, and ultrastructural features. J Heart Lung Transplant, 2020, 39: 1408-1416.

- **Bonetti A**, Allegri L, Baldan F, Contin M, Battistella C, Damante G, Marchini M, Ortolani F. Critical involvement of calcium-dependent cytosolic phospholipase A2a in aortic valve interstitial cell calcification. Int J Mol Sci, 2020, 21: 6398.

- **Bonetti A**, Marchini M, Ortolani F. Ectopic mineralization in heart valves: new insights from in vivo and in vitro procalcific models and promising perspectives on noncalcifiable bioengineered valves. J Thorac Dis, 2019, 11: 2126-2143.

- **Bonetti A**, Della Mora A, Contin M, Gregoraci G, Tubaro F, Marchini M, Ortolani F. Survival-related autophagic activity versus procalcific death in cultured aortic valve interstitial cells treated with critical normophosphatemic-like phosphate concentrations. J Histochem Cytochem, 2017, 65: 125-138.

- Iop L, **Bonetti A**, Naso F, Rizzo S, Cagnin S, Bianco R, Dal Lin C, Martini P, Poser H, Franci P, Lanfranchi G, Busetto R, Spina M, Basso C, Marchini M, Gandaglia A, Ortolani F, Gerosa G. Decellularized allogeneic heart valves demonstrate self-regeneration potential after a long-term preclinical evaluation. PLoS One, 2014, 9: e99593.

- **Bonetti A**, Cervi M, Tomei F, Marchini M, Ortolani F, Manno M. Ultrastructural evaluation of human metaphase II oocytes after vitrification: closed versus open devices. Fertil Steril, 2011, 95: 928-935.

- **Bonetti A**, Marchini M, Ortolani F. Immunolocalization of Interleukin-1 receptor antagonist in healthy and infarcted myocardium. Histol Histopathol, 2008, 23: 1093-1102.

- Ortolani F, **Bonetti A**, Tubaro F, Petrelli L, Contin M, Nori SL, Spina M, Marchini M. Ultrastructural characterization of calcification onset and progression in subdermally implanted aortic valves. Histochemical and spectrometric data. Histol Histopathol, 2007, 22: 261-272.

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Udine, July 21, 2023