

# Alessandro Bellofiore, Ph.D.

alessandro.bellofiore@sjsu.edu

One Washington Square, E 385 • San Jose, CA 95192-0082 • (408) 924-4096 (*office*)

---

## EDUCATION

---

Università Federico II, Napoli, Italy  
M.Sc. *cum laude* in Chemical Engineering 2003  
Ph.D. in Chemical Engineering 2006

---

## CURRENT APPOINTMENT

---

San Jose State University, San Jose, CA 2014 - present  
*Assistant Professor*  
Courses:  
BME 115: *Introduction to Biomedical Engineering*  
BME/ME 167: *Introduction to Biomechanics Engineering*  
MatE 175: *Biomaterials*

---

## TEACHING APPOINTMENTS

---

Università Federico II, Napoli, Italy 2006 - 2007  
*Teaching Assistant*  
National University of Ireland, Galway, Ireland 2008 - 2010  
*Instructor*  
University of Wisconsin-Madison, Madison, WI 2012 - 2013  
*Lecturer*

---

## RESEARCH APPOINTMENTS

---

Università Federico II, Napoli, Italy 2006 - 2008  
*Postdoctoral Researcher*  
Project: Characterization of Spray Placement and Flow field in Air Crossflow by means of Advanced Optical Diagnostics  
Advisor: Antonio Cavaliere, PhD  
Funding: European Union, 6th Framework Programme  
National University of Ireland, Galway, Ireland 2008 - 2011  
*Postdoctoral Researcher*  
Project: Bridging Scales in Biofluid Dynamics Measurements: Scaled-up Medical Device Models for Enhanced Resolution  
Advisor: Nathan J Quinlan, PhD  
Funding: Science Foundation Ireland  
University of Wisconsin-Madison, Madison, WI 2011 - 2014  
*Research Associate*  
Project: Right Ventricular-Pulmonary Vascular Interactions in Pulmonary Hypertension  
Advisor: Naomi C Chesler, PhD  
Funding: NIH R01 grant

---

**PROFESSIONAL DEVELOPMENT AND TRAINING**

---

<i>Human Subjects Research</i> training Collaborative Institutional Training Initiative	2011
<i>Animal User</i> certification University of Wisconsin-Madison	2011
<i>Effective Use of Technology in Teaching and Learning</i> course Center for the Integration of Research, Teaching and Learning (CIRTL) Network	2012
<i>Advanced Short Course in Clinical and Translational Research</i> UW Institute for Clinical and Translational Research	2013

---

**GRANTS AND AWARDS**

---

<i>Paul Eisenklam Travel Award</i> European Section of the Institute for Liquid Atomization and Spray Systems	2006
<i>Combustion Institute Travel award</i> International Section of the Combustion Institute	2006
<i>Honored Instructor Award</i> University of Wisconsin-Madison Students	2013
<i>Hartwell Foundation Individual Research Award</i> : finalist Non-invasive assessment of right ventricular function for optimal surgical timing in children with congenital heart disease	2013
<i>NIH Exploratory/Developmental Research Grant Award (R21)</i> : submitted MRI catheterization: towards all-in-one monitoring of pulmonary hypertension	2014
<i>Diversity Speakers Series Grant</i> SJSU Center for Faculty Development	2015
<i>Faculty and Staff Professional Development Grant</i> SJSU College of Engineering	2015

---

**PEER-REVIEW SERVICE**

---

Annals of Biomedical Engineering	2013
Journal of Biomechanical Engineering	2013
Journal of the Royal Society Interface	2013
Atomization and Sprays	2014

---

**MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

---

American Society of Mechanical Engineers	2012
Biomedical Engineer Society	2013

---

**OTHER SERVICE ACTIVITIES**

---

Member of the Organizing Committee of the <i>Bioengineering in Ireland</i> conference	2011
---	------

---

## PEER REVIEWED JOURNAL PUBLICATIONS

---

**Bellofiore, A.**, Henningsen J., Lepak C.G, Tian L. *et al.* (2015) A Novel In Vivo Approach to Assess Radial and Axial Distensibility of Large and Intermediate Pulmonary Artery Branches. *J Biomech Eng*, 137(4). doi: 10.1115/1.4029578.

Soydan L.C., Kelliham H.B., Bates M.L., Stepien R.L., Consigny D.W., **Bellofiore A.**, *et al.* (2014) Accuracy of Doppler echocardiographic estimates of pulmonary artery pressures in a canine model of pulmonary hypertension, *J Vet Cardiol*, doi:10.1016/j.jvc.2014.10.004.

**Bellofiore A.**, Wang Z., Chesler N.C. (2014) What does the RC time constant tell us about the progression of right ventricular dysfunction in pulmonary arterial hypertension?, *Pulm Circ*, accepted.

Tian L., Kelliham H.B., Henningsen J., **Bellofiore A.**, *et al.* (2014) Pulmonary artery relative area change is inversely related to ex vivo measured arterial elastic modulus in the canine model of acute pulmonary embolization, *J Biomech*, 47(12), pp. 2904-10.

**Bellofiore A.**, Chesler N.C. (2013) Methods for measuring right ventricular function and hemodynamic coupling with the pulmonary vasculature, *Ann Biomed Eng*, 41(7), pp. 1384-98.

**Bellofiore A.**, *et al.* (2013) Impact of Acute Pulmonary Embolization on Arterial Stiffening and Right Ventricular Function in Dogs, *Ann Biomed Eng*, 41(1), pp. 195-204.

**Bellofiore A.**, Quinlan N.J. (2011) High-Resolution Measurement of the Unsteady Velocity Field to Evaluate Blood Damage Induced by a Mechanical Heart Valve, *Ann Biomed Eng*, 39(9), pp. 2417-2429.

**Bellofiore A.**, *et al.* (2011) Scale-up of an Unsteady Flow-field for Enhanced Spatial and Temporal Resolution of PIV Measurements: Application to Leaflet Wake Flow in a Mechanical Heart Valve, *Exp. Fluids*, 51(1), pp.161-176.

**Bellofiore A.**, *et al.* (2010) Placement and acceleration of liquid jets in pressurized cross-flows, *Atomization Spray*, 20(9), pp. 775-789.

Ragucci R., **Bellofiore A.**, Cavaliere A. (2007) Trajectory and Momentum Coherence Breakdown of a Liquid Jet in High-Density Air Crossflow, *Atomization Spray*, 17(1), pp. 47-70.

Ragucci R., **Bellofiore A.**, Cavaliere A. (2007) Breakup and Breakdown of Bent Kerosene Jets in Gas Turbine Conditions, *Proceedings of the Combustion Institute*, 31, pp. 2231-2238.

**Bellofiore A.**, *et al.* (2007) Air Density Effect on the Atomization of Liquid Jets in Crossflow, *Combust Sci Technol*, 179(1-2), pp. 319-342.

Ragucci R., **Bellofiore A.**, Cavaliere A. (2004) Polarity Inversion in Electrohydrodynamic Spraying, *Combust Sci Technol*, 176(5-6), pp. 889-905.

---

## CONFERENCE PROCEEDINGS

---

32 podium presentations at international conferences.

---

## SKILLS

---

**Technical skills:** hemodynamic data collection and analysis, medical imaging analysis (OsiriX, Mimics), optical diagnostic techniques (Particle Image Velocimetry), computational fluid dynamics (Ansys CFX and Fluent)

**Computer skills:** NI Labview, Matlab, R (Statistics), ANSYS, Solidworks, OsiriX, Mimics, MS Office, LaTeX

**Language skills:** English, Italian, Spanish