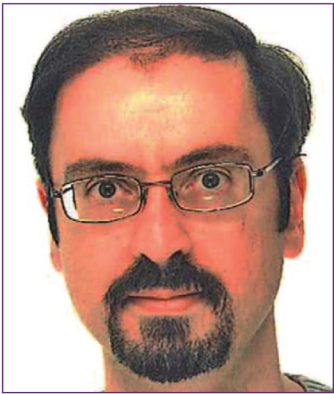


Ioannis P. Nezis

Email: I.Nezis@warwick.ac.uk



Research focus

Molecular mechanisms of selective autophagy in health and disease

Model system

Drosophila melanogaster and mammalian cell lines

Education and career

2002, PhD, Department of Cell Biology and Biophysics, University of Athens, Greece; advisor: Professor Lukas H. Margaritis. 2004–2005, postdoctoral fellow, Institute of Biological Research and Biotechnology, National Hellenic Research Foundation, Athens, Greece; advisor: Dr. Efstathios Gonos. 2005–2007, postdoctoral fellow, Department of Cell Biology and Biophysics, University of Athens; advisors: professor Lukas H. Margaritis and associate professor Issidora Papassideri. 2007–2012, postdoctoral fellow, Department of Biochemistry, Institute for Cancer Research, Oslo University Hospital, Oslo, Norway; advisor: professor Harald Stenmark. 2012–present, associate professor of cell biology and principal

investigator, School of Life Sciences, University of Warwick, Coventry, United Kingdom.

Why do you study autophagy?

When I was a PhD student I spent a lot of hours doing electron microscopy. In my specimens from *Drosophila* ovaries, I was often observing double-membrane organelles, which contained various structures. At that time (1998) they were few reports about autophagy and I used to call these double-membrane organelles “apoptotic vesicles.” It was during my postdoc studies when I observed again similar specimens that I realized autophagy was present in my tissue samples and that is why I got interested in autophagy. By reading the literature about autophagy I got really fascinated and have stayed in the field.

Where do you think the field is heading?

I think that in the next few years the advances in the field of autophagy will lead to the identification of druggable targets that can alleviate the symptoms of several diseases.

Why is the field of autophagy important to you?

The process of autophagy is an excellent paradigm of “cellular economics.” In my lab at the University of Warwick we are very keen to uncover the molecular and cellular machinery of selective autophagy in the context of development and tissue physiology.

Is there a key experiment/finding that stands out in your mind with regard to autophagy?

The first key finding that stands out in my mind with regard to autophagy is the

discovery of the role of SQSTM1/p62 in autophagy by Terje Johansen’s group. The corresponding paper showed that SQSTM1/p62 is degraded by autophagy, and it linked polyubiquitinated protein degradation to autophagy.

Which paper in your research field represents seminal work on autophagy?

As I mentioned above, my favorite paper on autophagy is “p62/SQSTM1 binds directly to Atg8/LC3 to facilitate degradation of ubiquitinated protein aggregates by autophagy” by Pankiv S, Clausen TH, Lamark T, Brech A, Bruun JA, Outzen H, Øvervatn A, Bjørkøy G, Johansen T. *J Biol Chem* 2007 282:24131–45. This paper was the first to show the molecular basis of the selective autophagy receptor SQSTM1, and it is a landmark paper for me.

Is teaching a substantial part of your current position? If so, what do you teach? Does it benefit your research, or benefit from your research?

Teaching is a part of my current position at the University of Warwick. I teach cell biology and I have included a few lectures about autophagy. Teaching is really important because the interaction with the students helps you to think “outside of the box.”

Personal comments

I spend most of my free time with my wife and my son. We like very much to travel and to watch movies. I really like to listen to music and especially to talented guitarists. I also play the guitar myself and I really wish I could play like Mark Knopfler (from Dire Straits).