

Thomas Jeongtaek Oh, Ph.D.

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Professional Experience

May 2012 – Current Instructor of Biology, Georgia State University at Perimeter College (GSU),
Dunwoody, GA, USA
Jun. 2003 – Jan. 2012 Postdoctoral Fellow/Research Scientist, Forest Biology Group, Institute of
Paper Science & Technology (IPST) at Georgia Tech (GT), Atlanta, GA, USA
May 2001 – Aug. 2002 Principal Investigator, USDA-SBIR Phase I program
NovoMark Technologies LLP, Shaker Heights, OH, USA
Jun. 2000 – Apr. 2001 Postdoctoral Fellow, Plant Biology Division
The Samuel Roberts Noble Foundation, Ardmore, OK, USA

Teaching Experience

May 2012 – Current BIOL1402 (Cell Biology & Genetics lecture/lab) and BIOL2107 (Principles of
Biology I lecture/lab), GPC, Atlanta, GA, USA
Jun. 2005 – Jan. 2012 Research instructor in BIOL4590/4699 (Research Project Lab/Undergraduate
Research), IPST at GT, Atlanta, GA, USA
Sep. 2010 – Oct. 2010 Lectures in BIOL4440 (Plant Physiology - Plant biotechnology section), GT,
Atlanta, GA, USA
Oct. 2003 – Dec. 2003 Research instructor in BIOL4202 (Genetic Biotechnology Laboratory),
Department of Natural Sciences (Drs. Hampikian & Jordan), Clayton State
University, Morrow, GA, USA
Aug. 1995 – Dec. 1999 Assistant instructor in BIOL301/401 (Biochemistry & Biotechnology, laboratory
courses), Department of Biology, Case Western Reserve University (CWRU),
Cleveland, OH, USA
Mar. 1992 – Oct. 1992 Teaching Assistant & Research associate, Myong Ji Biotech Research
Institute, Yong In, Republic of Korea

University Education

Aug. 1993 – May 2000 Graduate student, Ph.D. degree, Department of Biology, CWRU,
Cleveland, OH, USA; Plant Molecular Genetics major, GPA 3.86/4.0
Mar. 1988 – Feb. 1992 Undergraduate student, B.S. degree, Department of Biology,
Myong Ji University, Yong In, Republic of Korea, GPA 4.03/4.5

Major Grants Received

Pullman, G.S., Wartell, R.M. and Oh, T.J. Reprogramming conifer tissue for embryogenesis: can studies of gene expression during cell fate change in Norway spruce hypocotyl lead the way to induction of SE in mature tissue?, CPBR reprogramming. Awarded \$200,000, Grant No. GO12026-313 (2009)
Oh, T.J. and Cullis, C.A. DNA markers for detection of genomic integrity. USDA-SBIR Phase 1 Program. Awarded \$70,000, Grant No. 2001-00067 (2001)

Service

Sept. 2011 – present Member, Korean-American Scientists and Engineers Association (KSEA)
Jan. 2003 – present Member, American Association for the Advancement of Science (AAAS)
May 2000 – present Member, American Society of Plant Biologist (ASPB)
Sept. 1990 – present Member, Korean Society of Molecular & Cellular Biology (KSMCB)
Aug. 1997 – Jul. 1998 Member, Graduate Student Senate (GSS), CWRU, Cleveland, OH, USA

Honor

- May 2006 Travel Award, the 16th Penn State Symposium in Plant Physiology; RNA Biology: Novel insights from plant systems, 18-20 May 2006, University Park, PA, USA
- May 2000 The Verhosek Fund, Graduate Student Senate, Case Western Reserve University, Cleveland, OH, USA
- Feb. 1992 Alumnus Presidential Award, Myong Ji University, Yong In, Republic of Korea

Other Qualifications

Other language (Korean, fluent)
Computer (advanced level; different OS – Microsoft (MS) Windows NT/95/98/ME/XP/Vista/7/8.1 and basic Linux; MS Office; Bioinformatics software standalone & online)

Publications *(selected)*

Oh, T. J., Wartell, R. M. and Pullman, G. S. Novel microRNAs (miRNAs) are discovered using cDNA tiling arrays in a target-oriented approach (Submitted & Invention disclosure to Georgia Inst. of Tech. submitted)

Oh, T. J., Wartell, R. M. and Pullman, G. S. Reprogramming conifer tissue for embryogenesis: can studies of gene expression during cell fate change in Norway spruce hypocotyl lead the way to induction of somatic embryogenesis in mature tissue? (In preparation)

Oh, T. J., Wartell, R. M. and Pullman, G. S. Dynamic and complex expression of small RNAs including miRNAs in seed tissues revealed by microfluidic arrays and deep sequencing during embryogenesis of gymnosperm loblolly pine (*Pinus taeda* L.) (In preparation)

Oh, T. J., Wartell, R. M., Cairney, J. and Pullman, G. S. Evidence for stage-specific modulation of specific miRNAs (miRNA) and miRNA processing components in zygotic embryo and female gametophyte of loblolly pine (*Pinus taeda*) (2008) *New Phytol.* 179, 67-80

Oh, T. J., Cullis, M.A., Kunert, K., Engelborghs, I., Swennen, R. and Cullis C.A. Genomic changes associated with somaclonal variation in banana (*Musa* spp.) (2007) *Physiol. Planta.* 129, 766–774 (patent pending)

Cairney, J., Zheng, L., Cowels, A., Hsiao J., Zismann, V., Liu, J., Ouyang, S., Thibaud-Nissen, F., Pullman, G., Zhang, Y., **Oh, T.** and Buell, C. R. Molecular Comparison of Gymnosperm and Angiosperm Embryogenesis; Sequence and Analysis of Expressed Sequence Tags from Embryogenic Loblolly Pine Tissues (2006) *Plant Mol. Biol.* 62, 485-501

Oh, T. J. and Cullis, C. A. Labile DNA Sequences in Flax (*Linum usitatissimum*) identified by combined sample representational difference analysis (csRDA) (2003) *Plant Mol. Biol.* 52, 527-536

Oh, T. J. and May, G. D. Gene Targeting in Plants (2001) *Curr. Opin. Biotech.* 12, 169-172

Oh, T. J. and Cullis, C. A. RFLP and RAPD mapping in Flax (*Linum usitatissimum*) (2000) *Theo. App. Genet.* 101, 590-593

Oral Presentations

Cairney, J and **Oh, T.**, Gene Expression Studies of Loblolly Pine Embryogenesis (2005) Seattle, WA (invited for contract work)

Oh, T.J., DNA Markers for the Detection of Genomic Integrity (2001) Green Gene Biotech, Yong-In, Korea (South) (invited)

Poster Presentations (*selected*)

Oh, T.J., Pullman, G.S., Wartell, R. and Cairney J. Expression of microRNAs (miRNAs) in Embryos and Female Gametophytes during Loblolly Pine (*Pinus taeda*) Embryogenesis (2008) Georgia Bio

Oh, T.J., Pullman, G.S., Wartell, R. and Cairney J. Expression of microRNAs (miRNAs) in Embryos and Female Gametophytes during Loblolly Pine (*Pinus taeda*) Embryogenesis (2006) The 16th Penn State Symposium in Plant Physiology; RNA Biology: Novel insights from plant systems

Oh, T. J., Wartell, R., Cairney J. and Pullman, G. S. Can miRNAs help overcome the loblolly pine somatic embryo maturation barrier? (2005) TechnoBusiness Forum, Atlanta, GA, USA.

Oh, T. J. and Cullis, C. A. DNA Markers for the Detection of Genomic Integrity (2002) Plant, Animal and Microbe Genome X #144.

Kmiec, E. B., Rice, M. C., **Oh, T. J.**, Bruner, M., Torres-Jerez, I., Johnson, C., Parekh, H., Dugdale, H., May, G. D. Nuclear and Plastid Site-specific Gene Targeting through the use of Modified DNA and Chimeric RNA/DNA Oligonucleotides: Applications for Gene Discovery and Functional Genomics (2001) Plant and Animal Genome IX #241.

Oh, T. J. and Cullis, C. A. Labile DNA Sequences in Flax (*Linum usitatissimum*) Identified by Representational Difference Analysis (RDA) (2000) Plant and Animal Genome VIII #442.

Oh, T. J., Gorman, M. B. and Cullis, C. A. RFLP and RAPD Mapping in Flax (*Linum usitatissimum*) (2000) Plant and Animal Genome VIII #443.