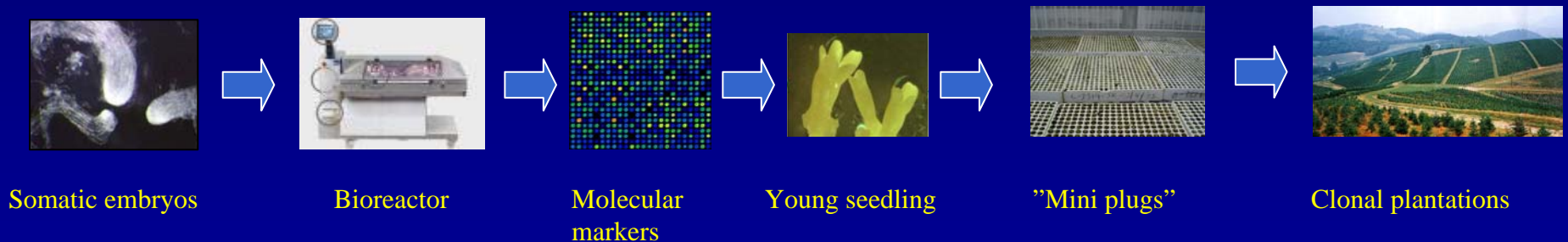


# Automation Of Somatic Embryogenesis Procedures For Large Scale Production Of Elite Crop Trees

M.Sc./Ph.D. Projects at Georgia Institute of Technology in Atlanta, Georgia, U.S.A.

**Goals and Objectives:** The primary goal of this project is to develop an automated system to facilitate scale up production of seedlings from somatic embryos of conifer crop trees. The specific objectives are: 1) Identify molecular markers for embryo quality; 2) Establish link between molecular marker and cellular processes; 3) Create image analysis program for targeting of specific embryos; 4) Develop sorting system to handle selected embryos.



To learn more about the specific projects in this area, contact:

Dr. Cyrus K. Aidun, Professor  
School of Mechanical Engineering  
Georgia Institute of Technology  
500 Tenth Street, N.W.; Atlanta,  
GA 30332-0620 U.S.A.  
[cyrus.aidun@me.gatech.edu](mailto:cyrus.aidun@me.gatech.edu)

OR Dr. Ulrika Egertsdotter, Assoc. Prof.  
Department of Forestry  
Virginia Polytechnic Institute  
and State University  
Blacksburg, VA 24061  
[uegertsd@vt.edu](mailto:uegertsd@vt.edu)



[www.gatech.edu](http://www.gatech.edu)

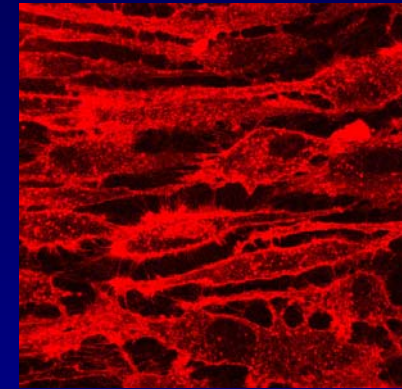


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# The Role Of Extracellular Matrix Components And Glycocalyx In the Onset Of Vascular Disease

M.Sc./Ph.D. Project at Georgia Institute of Technology in Atlanta, Georgia, U.S.A.

**Goals and Objectives:** We are studying the molecular dynamics of the glycocalyx layer of the vascular endothelium under conditions promoting vascular disease, to understand the specific role and regulation of the glycocalyx layer at the onset of disease. Specifically, for this project the hemodynamic stress response of *in vitro* swine endothelial cells will be analyzed by real time PCR and Affymetrix porcine microarrays. Furthermore, the molecular mechanism of the shielding properties of the GL are studied by biological atomic force microscopy.



Confocal micrograph of the glycocalyx layer of swine endothelial cells.

To learn more about the specific projects in this area, contact:



[www.gatech.edu](http://www.gatech.edu)

Dr. Cyrus K. Aidun, Professor  
School of Mechanical Engineering  
Georgia Institute of Technology  
500 Tenth Street, N.W.; Atlanta,  
GA 30332-0620 U.S.A.  
[cyrus.aidun@me.gatech.edu](mailto:cyrus.aidun@me.gatech.edu)

OR Dr. Ulrika Egertsdotter, Adj. Assoc. Prof.  
School of Biology  
[ulrika.egertsdotter@ipst.gatech.edu](mailto:ulrika.egertsdotter@ipst.gatech.edu)