PHILADELPHIA — Ravi Desai, a bioengineering researcher completing his doctoral degree at the University of Pennsylvania, has won the 2009 JCS Prize, awarded annually to the first author of the paper judged best by the editors and editorial board of the Journal of Cell Science. Authors must be students or postdoctoral researchers to be considered for the prize.

Desai’s paper, Cell Polarity Triggered by Cell-Cell Contact Via E-cadherin, demonstrated that cells are prompted by physical cues and cell-to-cell contact to assist in wound healing, a finding that may lead to improved treatments. The data further suggest that cell-cell adhesion is one microenvironmental cue that cells integrate to direct their function in a crowded cell environment.

Desai’s research focuses on cellular engineering, particularly using engineered biomaterials to study how cells use local cues from their environment to orchestrate cell functions, such as migration and polarization. The work focuses on understanding how physical interaction between cells is a key component of cell biology. His earlier work centered on the inability of spinal-cord neurons to heal following injury.

Desai is currently nearing completion of his dissertation research in the School of Engineering and Applied Science with bioengineering professor and collaborator Chris Chen.