Force-Driven Growth of Intercellular Junctions

Mohammad Tehrani , Alireza S. Sarvestani

PII: S0022-5193(17)30148-0
DOI: 10.1016/j.jtbi.2017.03.028
Reference: YJTBI 9021

To appear in: *Journal of Theoretical Biology*

Received date: 7 August 2016
Revised date: 28 March 2017
Accepted date: 29 March 2017

Please cite this article as: Mohammad Tehrani , Alireza S. Sarvestani , Force-Driven Growth of Intercellular Junctions, *Journal of Theoretical Biology* (2017), doi: 10.1016/j.jtbi.2017.03.028

Highlights:

- A thermodynamic model for the force-dependent behavior of cell-cell junctions is proposed.
- The behavior of clusters of slip and catch bonds subjected to a pulling force is studied.
- The junctions formed by catch bonds features some hallmarks of cell mechanotransduction.