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Adhesion of *D. discoideum* on Hydrophobic Substrate[1] BRET FLANDERS, NICOLETA PLOSCARIU, Kansas State University — Adhesion by amoeboid cells, such as *D. discoideum*, is poorly understood but critical for other behaviors such as phagocytosis and migration. Furthermore, both leucocytes and breast cancer cells employ the amoeboid mode of movement at various points in their life-cycles. Hence, improved knowledge of amoeboid adhesion may lead to be new strategies for controlling other important cellular processes. This study regards adhesion by *D. discoideum* on silanized glass substrates. Reflection interference contrast microscopy is used in conjunction with other methods to determine the contact angle, cell-medium interfacial energy, and adhesion energy of these cells. The contact angle of individual cells settling under gravity onto a substrate is observed to increase as the size of the contact patch increases. This behavior occurs on slower time-scales than expected for the settling of inert vesicles. The implications of this observation on the nature of the underlying forces will be discussed.

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Bret Flanders
Kansas State University

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