Supporting Information for

In Situ Analysis of Heterogeneity in the Lipid Content of Single Green Microalgae in Alginate Hydrogel Microcapsules

Do-Hyun Lee,+ Chae Yun Bae,+ Jong-In Han,+ and Je-Kyun Park*,†,§

†Department of Bio and Brain Engineering, Korea Advanced Institute of Science and Technology (KAIST), 291 Daehak-ro, Yuseong-gu, Daejeon 305-701, Republic of Korea

‡Department of Civil and Environmental Engineering, Korea Advanced Institute of Science and Technology (KAIST), 291 Daehak-ro, Yuseong-gu, Daejeon, 305-701, Republic of Korea.

§KAIST Institute for the NanoCentury, 291 Daehak-ro, Yuseong-gu, Daejeon 305-701, Republic of Korea.

* To whom correspondence should be addressed. E-mail: jekyun@kaist.ac.kr. Phone: +82-42-350-4315. Fax: +82-42-350-4310.
Individual profiling of single cells in three species

Figure S1. Enlarged bright-field and fluorescence micrographs of microcapsules containing single BODIPY-stained (a) *C. vulgaris*, (c) *Chlamydomonas sp.*., and (e) *B. braunii* cells, respectively. In situ quantitative comparison of the normalized fluorescence intensity of (b) *C. vulgaris* (*n* = 60), (d) *Chlamydomonas sp.* (*n* = 60), and (f) *B. braunii* (*n* = 50) cells within microcapsules. The stochastic heterogeneity in algal lipid content was evaluated based on the fluorescence signals of single microalgae. Scale bars: 20 µm.