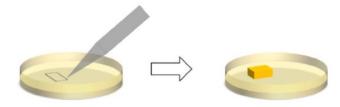
Supplemental Information

Development of a water refractive index-matched microneedle integrated with a lightsheet microscopic system for continuous embryonic cell imaging

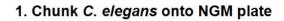
by

Yu-Jui Fan^{a,+,*}, Han-Yun Hsieh^{a,b,c,+}, Yen-Ru Huang^c, Chieh Tsao^d, Chia-Ming Lee^d, Hidetoshi Tahara^b, Yi-Chun Wu^e, Horn-Jiunn Sheen^{c,*}, and Bi-Chang Chen^{d,*}

- ^a School of Biomedical Engineering, International PhD Program for Biomedical Engineering, International PhD Program for Cell Therapy and Regeneration Medicine, College of Medicine, Taipei Medical University, 250 Wuxing St., Taipei 11031, Taiwan
 - ^b Department of Cellular and Molecular Biology, Graduate School of Biomedical Sciences, Hiroshima University, Hiroshima 734-8553, Japan
 - ^c Institute of Applied Mechanics, National Taiwan University, No. 1, Sec. 4, Roosevelt Rd., Taipei 10617, Taiwan
 - ^d Research Center for Applied Sciences, Academia Sinica, 128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan.
 - ^e Institute of Molecular and Cellular Biology, National Taiwan University, No. 1, Sec. 4, Roosevelt Rd., Taipei 10617, Taiwan
- * Correspondence author: Dr. Yu-Jui Fan, Associate Professor, School of Biomedical Engineering, Taipei Medical University, 250 Wuxing St., Taipei 11031, Taiwan. Phone: +886-2-2736-1661 ext. 7722, E-mail: ray.yj.fan@tmu.edu.tw
- * Correspondence author: Dr. Horn-Jiunn Sheen, Professor, National Taiwan University, No. 1, Sec. 4, Roosevelt Rd., Taipei 10617, Taiwan. Phone: +886-2-3366-5632, E-mail: sheenh@ntu.edu.tw
- * Correspondence author: Dr. Bi-Chang Chen, Associate Research Fellow, Research Center for Applied Sciences, Academia Sinica, 128 Academia Road, Section 2, Nankang, Taipei 11529, Taiwan. Phone: +886-2-2787-3133, E-mail: chenb10@gate.sinica.edu.tw



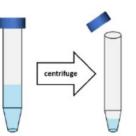




2. After 3 days, gravid adults on the plate

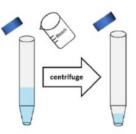


3. Dislodge C. elegans

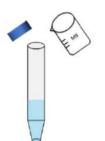


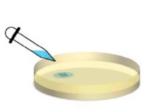
4. Transfer C. elegans to

centrifuge tube



5. Bleach C. elegans





6. Transfer *C. elegans* to M9 buffer

7. Transfer embryos to NGM plate

Fig. S1. Caenorhabditis elegans culture and test embryo preparation.