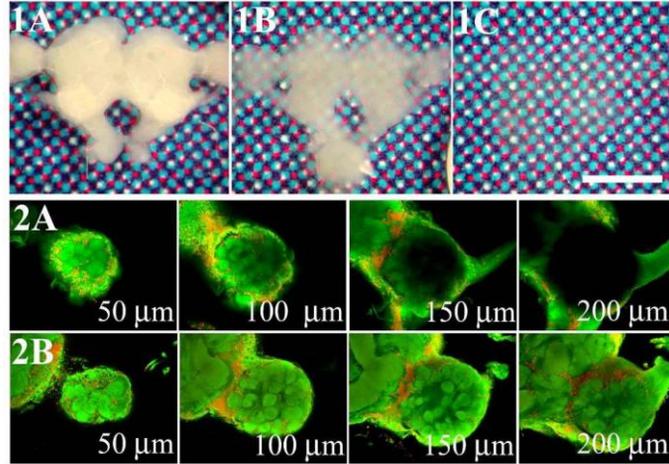


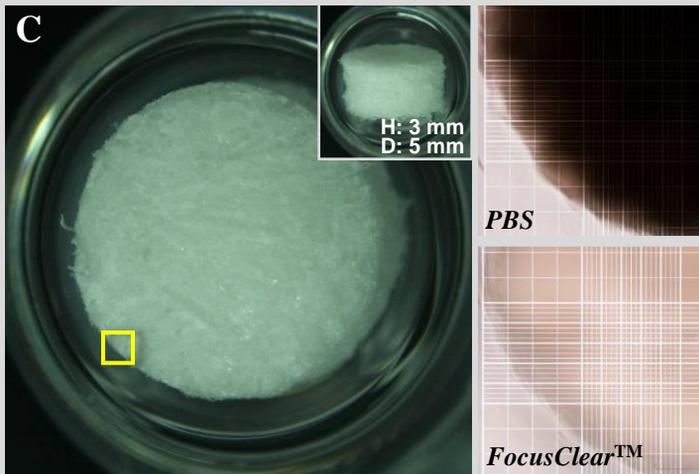
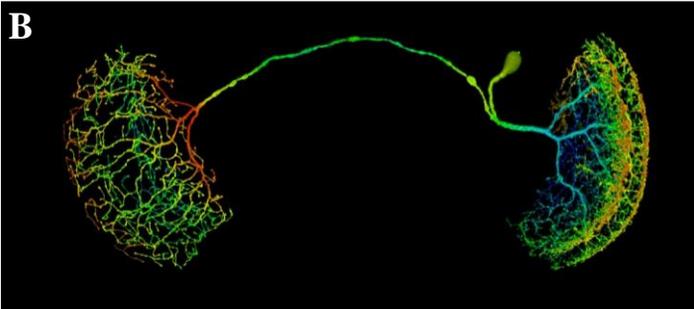
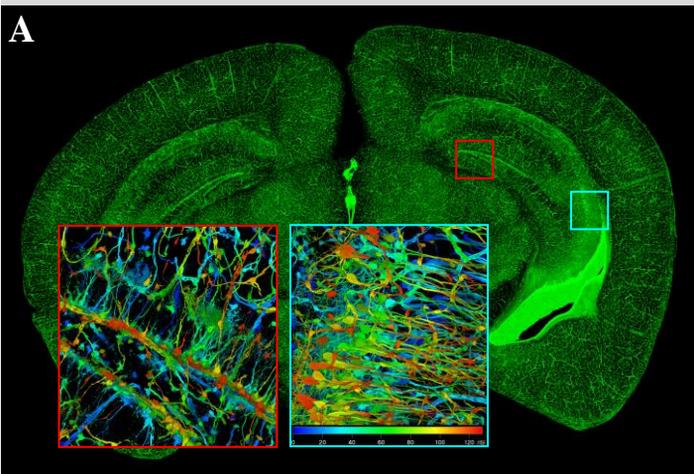


Visualizing the Architecture of Tissues and Biomaterials

FocusClear™ Kit is a non-toxic, ready-to-use optical clearing reagent making the fixed biological tissues and biomaterials transparent within minutes. *FocusClear™* kit significantly increases the effectiveness of laser excitation and fluorescence detection of confocal microscopy. Fixed samples labeled with fluorescence dyes including lipophilic stains, such as DiI, DiD and NBD-ceramide can be directly transferred from water, buffer solutions, alcohol, DMSO, DMF, and glycerin into *FocusClear™* solution. *FocusClear™* Kit is able to generate transparent tissue specimens including the whole insect brain, mouse intestine and brain slices, plant tissues, human cancer cell spheroids, and biomaterials such as cellulose and collagen matrices. The treated specimens allow penetrative confocal microscopy to visualize their internal structures in a 3D fashion.



FocusClear™ technology for high-resolution 3D imaging. (1A-C) *FocusClear™* enables efficient light penetration of the insect brain. (2A and 2B) A portion of the brain was in glycerol (2A, control, fluorescent signals were impaired when $Z > 100 \mu\text{m}$) or *FocusClear™* (2B, clear fluorescent signals) for 3D confocal imaging (Liu and Chiang, 2003).



Optical clearing of biological and biomaterial tissues

- (A) A mouse brain slice.
- (B) A *Drosophila* visual neuron (Chiang et al., 2011).
- (C) Collagen tissue-engineering scaffold (Tseng et al., 2009).



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Mouse

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Plant

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Biomaterial

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Item	Description	Cat#
FocusClear™ Kit	Includes 5 ml each of FC-101, MC-301, IS-502	F101-KIT
	Includes 50 ml each of FC-102, MC-302, IS-503	F102-KIT
FocusClear™	5 ml	FC-101
	50 ml	FC-102
MountClear™	5 ml	MC-301
	50 ml	MC-302
Immersion Solution-M	5 ml	IS-502
	50 ml	IS-503



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