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# Biocompatible gel formulation

Single-cell and cell cluster optical tomography, or Cell-CT, has found increasing application in life sciences basic research. Two limitations to its use in this area are that it can image only fixed cells, and the lack of thixotropic gels that can support live cells and also satisfy refractive index constraints.

Researchers at the Biodesign Institute of Arizona State University have developed unique biocompatible gels with variable chemical, physical and optical properties. Among other uses, these biocompatible gels may function as a matrix for cell culture and for supporting cells for microscopic imaging (as the refractive index of the gel can be tailored to match that of the capillary or other object containing the cell).

The biocompatibility plus tailorable optical and physical properties of these gels promise many applications in cell culture and imaging.

Potential Applications

- Cell culture and imaging in realistic, soft tissue-like matrix

Benefits and Advantages

- Improved optical properties
- Improved physical properties.
- Improved biocompatibility
- Tailorable optical and physical properties
- Demonstrated use for 3D cell imaging

For more information about the inventor(s) and their research, please see Dr. Meldrum's directory webpageDr. Meldrum's Biodesign directory webpage