

# IMAGING SCIENCE, END TO END. AND THE DISCOVERY BIOLOGY AROUND IT.

I am Lucas Thal, PhD, an independent imaging scientist for biotech teams, CROs, tool companies and investors. I find where an image-based assay breaks, in the design, the acquisition, the analysis or the statistics, and fix it before it drives a decision.

**Images that hold up.** Assay design, acquisition and analysis for high-content and advanced microscopy, from fluorophore choice to the statistics. You get a pipeline you can rerun and a phenotype you can defend.

**Human models you can trust.** iPSC neuron, astrocyte and microglia mono- and tri-cultures with explicit QC gates that separate disease biology from differentiation noise, and readouts chosen for the question.

**A cascade, not a pile of assays.** Biochemical to functional to translational, with go/no-go criteria at every tier, for small molecules, antibodies, siRNA and ASOs.

**Strategy that gets a program to the next gate.** Go/no-go criteria, build versus outsource, CRO selection and oversight, and scientific diligence, written for the people who have to make the call.

## WHERE TO START

**Assay Cascade Design Sprint** — From \$17,500. Cascade Design Dossier, 15–30 pages.

**Imaging and Functional Readout Audit** — From \$12,000. Readout Audit Report, 10–20 pages, with an optional rerunnable notebook.

**Scientific Diligence Memo** — Red-flag memo from \$8,500; full memo from \$17,500. Diligence Memo, 8–15 pages, with a red-flag table.

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Thalamus Biosciences, Founder 2026–present · Neurocrine Biosciences, Senior Scientist 2021–2025 · PhenoVista Biosciences · Vanderbilt PhD, Chemical Biology · Lawrence Berkeley National Lab · Ten publications, 300+ citations · San Diego

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