

Qlear Chemicals

Elif Alpöge, CEO and Founder

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Transforming anatomic pathology

Industry

Diagnostic, 3D Differential Diagnostic

Executive Leadership

Elif Alpöge, CEO and Founder

Yousef Al-Abed, PhD,
Co-founder
Head of Chemistry

Ibrahim Mughrabi, MD, PhD,
Co-founder
Head of Clinical Applications

Board of Directors

Elif Alpöge, Director and Chairwoman

Scientific Advisory Board

Dr. Ayse Aytaman, MD,
Chief of Gastroenterology,
VA-Harbor Health

Dr. Peilin Zhang, MD,
Attending Pathologist,
NY-Presbyterian Brooklyn Methodist

Finance

Seeking \$500K Seed

Use of Funds

Prototype Optimization
Proof of Concept
Scientific Staffing

2019, Delaware C-Corp

Intellectual Property

Provisional patent, 2019, FIMR, TTO
Exclusive License for all applications

Locations:

Brooklyn
Istanbul

Employees

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Executive Summary: Qlear Chemicals' ClearPath improves diagnostic accuracy and saves lives by developing a breakthrough 3D differential diagnostic for analysis of whole, uncut anatomic specimens. ClearPath provides pathologists with immediate 3D insight into patients' anatomic diseases, reduces analytic error and reporting turnaround times of serial sections or repeat stains, and labor costs. Applications include histopathology diagnostics, companion diagnostics (cDx), drug discovery.

Company History: Qlear Chemicals is an early-stage commercial company committed to discovering, developing and delivering reagents and diagnostics for 3D pathology. Ms. Elif Alpöge has a scientific background in biophysics and 3D histology. Dr. Yousef Al-Abed is an organic chemist and the VP of Molecular Targets and Head of the Center for Molecular Innovation at the Feinstein Institute for Medical Research (FIMR). Dr. Ibrahim Mughrabi is a clinical research scientist with a speciality in neuroimmunology at FIMR.

Market Opportunity/Unmet Need: 3D pathology is an emerging subsegment of tissue diagnostics and anatomic pathology. 2D differential tissue (IHC) diagnostics market in the US is approximately 20% of all anatomic pathology diagnostics. This market is expected shift to 3D pathology, increasing diagnostic accuracy, reducing analytic error and associated costs. Total addressable market is \$1.3B annually. Early adopters are expected to be surgical pathology divisions at the 10 major academic medical centers, 272 hospitals nationwide. This is a market of \$163 MM.

Product: ClearPath is a revolutionary, proprietary, 3D differential diagnostic for use with immunofluorescent analytes. ClearPath applications include histopathology diagnostics, companion diagnostics, toxicology studies, drug discovery, tumor and immune cell invasiveness studies and immunohistochemistry research tool.

Commercial / Technical Milestones

- Q2 2019-Q3 2019 Optimization, POC Studies
- Q4 2019-Q2 2022 Clinical Dev, Phase I-IV Assay Dev
- Q2 2022 510(K) pre market notification submission
- Q1 2023 ClearPath Launch, Class I Medical Device

Competition: Qlear Chemicals is first to market 3D pathology. Competitors in 2D anatomic pathology reagents include Thermo Fisher (US), Millipore-Sigma (US), VladaChem (GR). Key manufacturers of 3D optical clearing research tools are ClearLight Biotechnologies (US), Logos Biosystems (KR), LifeCanvas Technologies (US) and Visikol (US). Published protocols are from Stanford University (CLARITY), MIT (Expansion Microscopy, SHIELD), Genentech, (3Disco), Rockefeller (iDisco, Adipoclear), UTokyo (CUBIC), Hokkaido University (LUCID) and others.

Financial Projections (Unaudited)

- ~ \$ 60 price-per-procedure
- Estimated 6 month in-house customer validation studies
- 50% initial graduation adoption of all differentials
- Revenue: 2023 \$1.8M (5 med centers), 5 Yr \$74.8M

Case Study: Weill Cornell NY-Presbyterian Surgical Pathology, 41,000 accessions per year; Weill Cornell Anatomic Pathology, 35 pathologists, estimated ~210,000 accessions/year; 41k x 20% (IHC) x 10% (Y1 6 mo validation) x \$60 = \$49.2k; 210k x 20% (IHC) x \$60 = \$2.5 MM, 2D IHC to 3D IHC total adoption shift. Average anatomic accessions per pathologist 6,000 (CMS), total US pathology workforce 18,000 (CMS)