



ADESIS

A Universal Display Company



Who We Are

Mission

Accelerate our clients' success through innovative chemistry and solutions from discovery to market.

Vision

Innovate for Life.

Values

Innovation

Advance The Line: We are innovators and pioneers, pushing boundaries and innovating with quality and speed.

Ownership

Act with Ownership: We are accountable and personally invested in being the best for our clients and colleagues.

Integrity

Achieve with Integrity: We are honest, transparent, respectful, and live up to our commitments.



Who We Are



Awards

2019

- Forbes America's 100 Most Innovative Leaders

2020

- Fortune's 100 Fastest-Growing Companies
- The Forum of Executive Women Champion of Board of Diversity

2021

- Newsweek's America's Most Responsible Companies
- Financial Times' The America's 500 Fastest-Growing Companies
- Awarded Silver Medal from EcoVadis
- The Forum of Executive Women Champion of Board Diversity

2022

- Newsweek's America's Most Responsible Companies
- Forbes America's Best Mid-Sized Companies
- Awarded Silver Medal from EcoVadis
- The Forum of Executive Women Champion of Board Diversity

2023

- Bloomberg's list of 50 Companies to Watch in 2023
- Newsweek's America's Most Responsible Companies 2023

Our 100% US-based R&D and Manufacturing facilities are part of a global network



UDC CORPORATION
Silicon Valley



UDC VENTURES
New York, NY



ADESIS
UDC HQ, Ewing, NJ
A Universal Display Company



Shannon, Ireland



China



Korea



Japan



Taiwan



Hong Kong





Discovery Chemistry

*With ~80% of our R&D team being PhD scientists, we are a direct extension of your R&D team, offering **innovative, agile and integrated** drug discovery collaboration to deliver high purity, quantity and speed.*

What We Do



Process Chemistry

*With extensive experience in chemical process development, we are innovators, committed to delivering **cost-effective, safe and scalable** chemical processes.*



Specialty Manufacturing

*With our **100% US-based facilities**, we have extensive chemistry, sourcing and manufacturing capabilities to safely and **seamlessly transfer** from discovery to manufacturing with high quality and speed.*



What We Do

Process Chemistry

- Route scouting and selection
- Fit-for-purpose process development to enable expedited synthesis in the 1-5 kg range
- Process development and non-GMP synthesis to deliver intermediates, specialty chemicals and APIs on multi-Kilo scale
- Process intensification
- Process development to enable cGMP manufacturing
- Process hazard evaluation (DSC, TSu and reaction calorimetry)
- Synthesis and isolation of impurities
- Fate and purge of impurities
- Process consistency studies
- Design of Experiments (DoE)
- Study critical process parameters and operating ranges



What We Do

Process Chemistry

Flow

- Three fully automated systems for reaction optimizations, and an automated reagent injectors that can be programmed for up to 120 reagent combinations in one run
- Accurate flow rate from 1 $\mu\text{L}/\text{min}$ to 10 mL/min per channel, expandable to 50 mL/min per channel for production use
- Pressure up to 5000 psi
- Large collection of reactor from 1 mL to 60 mL, and ability to design and fabricate reactor to meet customer need. Materials: PTFE, HPFA, hastelloy, stainless steel, borosilicate, and quartz
- Dedicated photochemistry equipment
- Gas addition module for reaction involving hazardous or high-pressure gas, i.e. H_2 , O_2 , CO , etc.
- Solid phase reactor
- Temperature range: $-30\text{ }^\circ\text{C}$ to $300\text{ }^\circ\text{C}$
- Experienced in mg to 100s g synthesis



What We Do

Process Chemistry

Analytical

- Multi-nuclei 300 & 400 MHz NMR spectrometers
- HPLC-MS and UPLC-MS systems with photo diode array detectors and single quad mass spectrometers
- Dedicated HPLC systems for chiral and normal phase chromatography
- Gel permeation chromatography with refractive index (RI) detector
- Evaporative light scattering detector (ELSD) and charged aerosol detector (CAD) for HPLC
- On-demand LC-MS & GC-MS systems for R&D
- GC-MS systems with single quad mass spectrometers
- GCs with flame ionization (FID) and thermal conductivity (TCD) detectors
- Prep LC systems
- X-Ray diffractometer (PXRD)
- Differential scanning calorimeter (DSC) and thermogravimetric analyzer (TGA) for thermal analysis



What We Do

Specialty Manufacturing

- Seamless transfer from ongoing R&D scale up efforts through to manufacturing
- Complex synthesis of small molecules used in:
 - Non GMP synthesis of starting materials, intermediates, or API's
 - Specialty chemicals
- Batch sizes from 5 - 35 kg, with the capability to provide in excess of 1 metric ton (MT) per year
- ISO-9001:2015 Certified Quality Management System with additional elements based on ICH Q7
 - GMP for APIs



UNIVERSAL DISPLAY
CORPORATION™




ADESIS
A Universal Display Company

Products we enable today ...

OLED Smartwatches & Smartphones

Samsung
Galaxy
Watch5



Apple Watch Series 8



Garmin
Venu sq 2



Xiaomi
Watch S1
Pro



Google
Pixel
Watch



Oppo Reno8 Z



vivo V25



Galaxy A73 5G



iPhone 14 Pro



Honor X40



Motorola Edge 30
Ultra



Google Pixel 7



Infinix Zero Ultra



ZTE Blade V40s



Huawei Pocket S



OnePlus 10T



Xiaomi Redmi
Note 12



How We Do It

Solution Models

Manufacturing and Pilot Runs

- We validate or improve the Process and perform the initial manufacturing to provide reliable materials to you.
- We Scale the process >1 MT at Adesis.
- Using our Parent Company site in Shann Ireland or partnerships in India we can arrange for full manufacturing on a continent of your choosing.



What We Do It

Solution Models

Full-time Equivalents (FTEs)

- FTEs commit full time (40 hours) to the sponsor. Projects are quoted on time with estimated materials and back-charge of raw materials.
- FTE projects provide:
 - Incentive to follow the best evidence-based path of investigation
 - The flexibility to alter a project's focus without adjusting or re-issuing work orders.
 - The ability to cancel a job if there are no longer any chemistry needs



Our Contact

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Thank You



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