

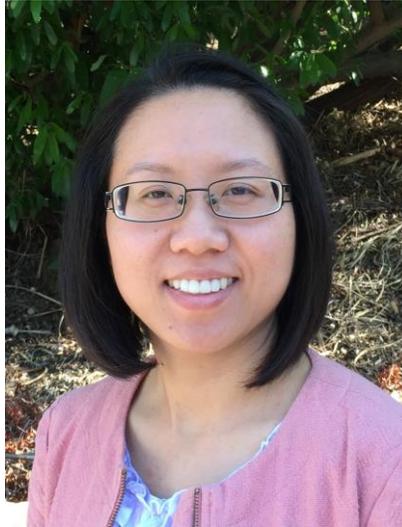
# Cell Culture Engineering XV

An ECI Conference Series

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## 2016 Martin Sinacore Award Winner



**Huong Le**

**Huong Le** is the 2016 winner of the Martin Sinacore Outstanding Young Investigator Award. She joined the Process Development group at Amgen in 2012 after completion of a Chemical Engineering Ph.D. at the University of Minnesota. In her Ph.D. work she introduced advanced data mining to unveil hidden process characteristics from biomanufacturing data. Her work on systems analysis of transcriptome data helped advance transcriptomic applications in biopharmaceutical science. With her insight on transcriptomics she demonstrated a novel concept of dynamic cell engineering using endogenous promoters with various dynamics of expression profiles.

At Amgen, Huong continued engaging in first-principle based approaches to biopharmaceutical processes development despite the complexity and rigor associated with this approach, all while fully engaging in the core responsibility of advancing innovative programs in Amgen's early-stage pipeline. Recognizing gaps in reference sequence utilization for CHO transcriptomic studies, Huong led an effort to compare available public genomic references which resulted in an important recommendation for the approach of choice.

Furthermore, she has co-developed an integrated and automated transcriptomics analysis pipeline which substantially reduces the time and effort to analyze RNA-Seq data. Huong has extensively characterized intrinsic variability associated with metabolomic data in CHO cells and has shown that technical variability can surpass biological variability, highlighting the need to account for this variability during biological interpretation of -omics data. Collectively, her research efforts can accelerate wider adoption of omics-based approaches analysis to facilitate mechanism-driven biopharmaceutical cell line development and process optimization.

In addition to engaging in high quality first principles-based research over her ~4-year industrial career, Huong has played a key-role in the advancement of multiple innovative molecules in Amgen's early-stage pipeline, several of which have resulted in successful IND filings.

The **Martin Sinacore Outstanding Young Investigator Award** was established by ECI and Biogen to pay tribute to the many contributions Marty Sinacore made to the cell culture and bioprocessing community over the course of his productive thirty-year career. Although we have lost an influential thought leader, his influence will be felt for years to come given the role Marty played in shaping the way we approach the challenge of developing new therapeutics. Working with pre-adapted host cells, high throughput analytics to enable product quality assessments early in cell line development and the adoption of "omics" technology to improve bioprocessing are common place today thanks in part to the innovative vision Marty brought to the field over the years.

Beyond being a productive scientist, Marty will also be remembered for his genuine warmth and ability to connect with people of all types. He was deeply committed to working collaboratively and breaking down barriers so that common problems could be effectively solved. To this end, he formed the MassBio Upstream Process Development Forum to provide a venue in which the Boston bioprocessing community could come together and share ideas.

His true passion however was sharing his knowledge, experiences and insights with junior scientists to help them grapple with challenging problems and grow as scientists. It is with this spirit in mind that the award has been created; to not only celebrate the immeasurable impact Marty's mentorship has had on the careers of many young scientists but also acknowledge the accomplishments and exceptional promise of the recipients.

Previous winners of this award are **Colin Clarke** (Dublin City University, Ireland) and **Corinne Hoesli** (McGill University, Canada).