

AI Expert Perspective

AI in Pharma Summit 2018

October 9th, Boston, MA

Industry Expert Interview:



NURITAS
Life-changing Discoveries

Dr. Chantelle Kiernan
Director, Life Sciences

Dr. Chantelle Kiernan joined Nuritas in 2018 as Director of Lifesciences having spent almost 18 years working across a variety of Life Sciences sectors. In her last role as Senior Scientific Advisor for IDA, she was integral in securing multi-million strategic research investments for Ireland from the world's largest Biologics, Pharmaceutical and Medical Device multinationals. In her current role, she seeks to continue her collaboration with large Pharma, with an objective to accelerate the practical adoption of AI to facilitate industry in their discovery of novel bioactive therapeutics.

2018 has seen a dramatic increase in companies looking to practically adopt AI to derive value from their business. Why?

Like any emergent technology it takes time to bed down, for companies to become familiar and importantly comfortable with it. The past three years have witnessed a period of intense knowledge immersion by traditional Pharma with much time spent trying to demystify AI and delineate the hype from the technology benefits.

We are now at an inflection point; industry have a better understanding on where AI applications should be beneficial and what technologies might best serve these needs. These factors are now driving projects to prove the case.

What's holding back Pharma's adoption of AI?

Coming from a traditional pharma background, it's likely multifaceted. As a sector we are probably risk-averse with a tendency to default to 'tried and tested methodologies' unless we can clearly demonstrate value from implementing a change from the *status quo*. But for AI to be truly integrated in a meaningful way, it's also very much about culture, and a culture shift towards acceptance of digitalisation and AI in its full spectrum of guises is necessary. Industry can never have enough case studies and fortunately more case studies are now coming to bear which help industry better understand how and where AI delivers value. For example, one of our collaborations will see a new food for health active commercialised -

- within two years of the initial in silico discoveries. That's a significant time and subsequent cost reduction versus traditional models.

When do you think we'll have a true understanding of AI's impact?

I think we can demonstrate this now for certain applications, but it requires companies to take a leap of faith and trust in the abilities of their collaborating partners. It's important to note that although traditional Pharma may not fully understand the benefits AI can bring, specialist TechBio companies like ours do. Collaborating with the right specialist partner, with the right competencies is key. Selecting trusted partners which have an in-depth understand of what technologies to develop and deploy in order to address defined challenges posed by industry, in my opinion, is the optimal way to generate quick wins and prove its value.

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Within Pharma, who is most responsible for embracing new changes such as AI?

Digitalisation is already pervasive in the consumer world and is being embraced by certain sectors at pace. In comparison, Pharma have been slower to adopt, in my opinion for this to change, an AI strategy needs to come from the top down to drive widespread adoption within the Group. Vasant Narasimhan from Novartis is a stellar example of how a CEO has driven a culture shift within an organisation towards digitalisation. But in tandem we cannot ignore the need for a bottom up approach. Industry AI champions are crucial in identifying the potential value in an emerging technology and partner, driving that concept up the line and converting it into an implementable project. We need more AI champions in industry!

What are Nuritas doing that's different?

At Nuritas we believe we have a number of unique differentiators; namely we only discover novel bioactive peptides (not repurposing), initially derived from natural sources, in disease areas of industry relevance.

We deploy a fully integrated approach to discovery, leveraging our team of AI specialists, with competencies spanning the range of in silico technologies, to select and build the right approach for industry needs. Our discoveries are validated by our in house laboratory via our multi disciplinary teams of scientific specialists, to ensure leading in silico predictions correlate with desired bioactivity and other required active characteristics. Since high quality, reproducible and clean data is the cornerstone to success, our AI platforms interrogate both proprietary phenotypic data - generated in house, plus proprietary curated public data. When combined, they deliver truly novel discoveries. As more new companies emerge in AI empowered discovery, it's important for Pharma to really understand how companies differ and what their strengths are in deciding on partnering strategies.

What are you most looking forward to at the AI in Pharma Summit?

I'm really interested in the future direction of Pharma in terms of treatment types and modalities

and where AI might accelerate discovery and alleviate challenges. Emerging therapies such as immunotherapeutics and personalised medicines in general hold huge promise for patients but can often be problematic and costly to develop and manufacture, which will further negatively impact on the already poor return on research investment. Maybe AI holds some promise in mitigating both current and potential future challenges? We hope the industry will join us in our interactive workshop to hear more about what we do and collectively brain storm such topics.

Chantelle will be expanding on her views and highlighting the AI capabilities of Nuritas at The 2nd Annual AI in Pharma Summit in Boston, October 9th 2018. Chantelle, along with her colleague Emmet Browne (CEO), will be hosting a workshop titled, "Collaborating to Accelerate Drug Discovery: Lessons for Pharma and the promise of AI in the Discovery of Next-Generation Therapeutics."

Nora Khaldi (CSO, Nuritas) will also be delivering a presentation titled, "In Silico Predictions and In-Vivo correlations: The Importance of Data Quality and Integrity in Driving AI-Empowered Discovery."

To find out more, visit: www.nuritas.com

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