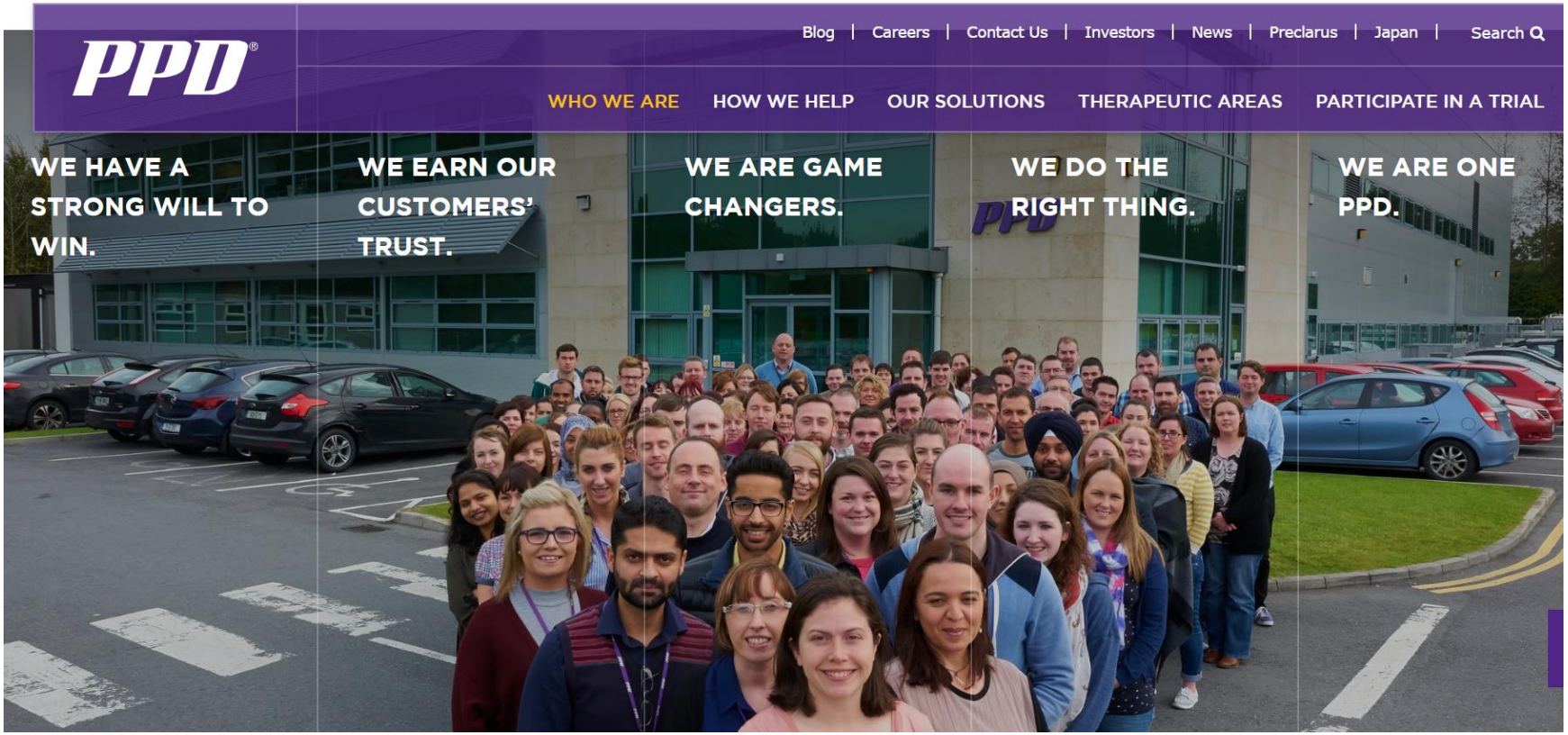
PPD

At PPD, our purpose is to improve health, our mission is to help our customers deliver life-changing therapies and our strategy is to bend the cost and time curve of drug development and optimize value



HELPING DELIVER LIFE-CHANGING THERAPIES

PPD

PPD

At PPD, our five Defining Principles are critical components in accomplishing our mission. These principles guide us and, ultimately define us.

WE HAVE A STRONG WILL TO WIN.

WE EARN OUR CUSTOMERS' TRUST.

WE ARE GAME CHANGERS.

WE DO THE RIGHT THING.

WE ARE ONE PPD.

Click "**Life at PPD**" tab in www.ppd.com/careers for more information on what it is like working at PPD.

My Journey

- Background in Microbiology (BSc, MSc)
- MS in Biostatistics from UNC Chapel Hill
- Started as Statistician at an Academic Research Organization (DCRI)
- Executive MBA (Finance) from UNC Chapel Hill
- Started at PPD in 2011
  - Associate Director, Biostatistics
  - Director, Biostatistics
  - Director, Statistical Science

Biostatistics at PPD

- Career tracks for Biostatisticians
  - Management
  - Operations
  - Statistical Science
- Tracks split beyond senior statistician level

- Skills needed to succeed (initial career stages)
  - Project leadership, organization and planning
  - Technical
  - SAS programming
  - Attention to detail
  - Ability to continuously learn and adapt
  - Compliance with standards

- Currently hiring?
  - Yes! We are looking for bright minds and talent to join us. You are welcome to send your resume to Kacy.Fortson@ppdi.com and/ or apply online at www.ppdi.com/careers.
  - PPD is known for having particularly great training for new graduates.

Data Analytics at PPD

The data analytics (DA) group at PPD is embedded within the global clinical development organization. DA develop and employ unique analyses across a variety of data sources to monitor ongoing clinical trials, surveilling data quality and operational integrity and identifying emerging risk.

The programming arm of the DA group:

+ Help define and rapidly implement novel analyses in support of statistical monitoring, risk surveillance, quality tolerance limits, etc.
+ Work with a variety of clinical trial and operational data
+ Leverage analysis and visualization tools such as SAS, R and Spotfire
+ Solve automation and standardization challenges

We are looking for creative problem solvers that can work in a rapidly changing environment, work with complex and varied clinical trial data to provide fit for purpose analyses and tools in support of in-stream data and risk surveillance.

You are welcome to send your resume to Kacy.Fortson@ppdi.com

Data Science at PPD

Predictive Analytics for Operational Outcomes

- Much of the data science work we do at PPD has to do with predicting operational outcomes and risk
- Examples include a clinical trial site recommendation engine, and revenue forecast model, and an NLP model to automatically identify similar studies, taking into account multiple dimensions

"Data Dimension" Problem

- With our operational data, we tend to have a longer array of variables, and less prior observations
- As an example, there are only ~100k investigators in the world. On average they have participated in 3-5 trials, so there are at most 500k prior observations. When we break this down by indication, we may get ~50k investigator-observations per indication. This is a very small number of observations to train a traditional machine learning model

Building a Data Science Center of Excellence

- To support the future growth of our business, lower the cost of running a data science team, and more efficiently manage our business and financial risks the executive team has recommended the implementation of the Center of Excellence
- This means that our data science team has the chance to build a cross-functional capability from the ground up and really influence the way we execute a data science strategy

John Van Hoy
Executive Director, Data Science & Advanced Analytics
Enterprise Data
PPD Inc.
Email: john.vanhoy@ppdi.com