**Title: Associate Director, Data Science**

**(P4 – Associate Director)**

**Generic HHIAD Language:**

**For internal postings**

In alignment with our company strategy to leverage digital and data, Human Health has launched the HH Insights, Analytics, and Data (HHIAD) organization, in support of its aspiration to become the premier data-first commercial biopharma organization by 2023. This central organization is focused on the application of data, analytics, and insights across the end-to-end commercialization process, to drive data-driven decision making, on behalf of our patients and customers.

As HHIAD continues its transformation, to bring premier capabilities to Human Health, we are seeking a dynamic talent for the role of Associate Director, Data Science.

**For external postings**

At Merck and MSD we are leveraging analytics and technology, as we *invent for life* on behalf of patients around the world. We are seeking those who have a passion for using data, analytics, and insights to drive decision making, that will allow us to tackle some of the world’s greatest health threats.

Within our commercial Insights, Analytics, and Data organization we are transforming to better power decision-making across our end-to-end commercialization process, from business development to late lifecycle management. As we endeavor, we are seeking a dynamic talent to be a Founder, and serve in the role of Associate Director, Data Science

**Position Description**

The position of Associate Director – Data Science functions as a functional area leader. This position is responsible for all phases of planning and executing data science related analytical projects and communicating the analytical outcomes and budget allocation strategies to internal Sales and Marketing teams. It requires the development of data-driven, profit-maximizing recommendations concerning the allocation and targeting of promotional resources through the application of quantitative methods to secondary data sources. Areas of focus include Primary Care, Specialty, Vaccines and Oncology markets.

Primary activities and responsibilities include, but are not limited to:

* ***Leads the functional area that analyze sales impact and optimize the resource allocations of Health Care Consumer (HCC) traditional and digital promotions for a Merck Business Unit***
* Responsible for autonomously developing all phases of project planning and execution of those projects.
* Analyze various patient claims and EMR data sources to understand patient behavior in support of consumer promotions planning.
* Build and analyze behavioral segments, Promotional Response models, Return on Investments, impact assessment for physician- and patient-directed promotional programs and Marketing Mix models, Optimal promotional sequences to determine business impacts of various Health Care Provider (HCP) and Health Care Consumer (HCC) promotions.
* Collect, synthesize and analyze various pharmaceutical and business intelligence data sources and recommend analytically driven optimal HCP and HCC channel budgets.
* Communicate effectively with cross-functional teams and internal clients such as marketing brand leaders, center of excellence teams, senior management etc., to stay abreast of business trends, understand the business issues and develop relevant business intelligence and analytical solutions.
* Analyze competitive market strategies through evaluation of relevant pharmaceutical markets, products and market shares.
* Generate standard or custom reports and presentations summarizing business and financial data for review by executives, managers, clients, and other stakeholders.
* Design and build software tools to streamline statistical and operations research based advanced analytical methods.
* Analyze industry and technology trends to identify target markets for launch products or to improve sales of existing products. Research and apply emerging analytical methods and tools such as Machine Learning, Deep Learning, Advanced Statistical methods, Cloud Computing in Amazon Web Server (AWS), Python, R etc., to measure promotional impacts and optimal budget allocations.

The Primary Activities include:

* Directly influence decisions concerning the amount, allocation and targeting of promotional resources
* Projects are product-specific, including new and in-line products, and/or focused on issues spanning multiple products
* Challenged to synthesize information about therapeutic markets and their products, current marketing and sales practices, best practice marketing concepts, and pertinent market data to develop actionable promotion resource allocation recommendations

This position resides within the Promotion Optimization team within the Commercial Investment Optimization (CIO), Commercial Analytical Solutions (CAS) division of Human Health Insights Analytics and Data (HHIAD) organization.

**Position Qualifications:**

**Education Minimum Requirement:**

* Master of Science (MS) in Management Science, Business Analytics, Statistics or closely related field *with THREE years of experience.*

*OR*

*Bachelor of Science (BS) in Management Science, Business Analytics, Statistics or closely related field with FIVE years of experience.*

**Required Experience and Skills:**

* The candidate must have a minimum of ***MS with three years OR BS with five years of experience*** in developing and applying analytics solutions and client communications to solve business challenges related to health cate industry
* Experience in analyzing sales impact of promotional campaigns such as Linear TV, Streaming TV, Over-the-Top (OTT), Radio, Mobile, Display, Social, Point of Care, Paid & Organic search etc. that are directed at Health Care Consumers (HCC) is required.
* Working knowledge of SAS, R, Python and Excel are required.
* Understanding of the Health Care or Pharmaceutical industry and experience in using various 3rd party data sources, such as IMS Exponent and/or Longitudinal Patient Level Data are necessary.
* The candidate must also have demonstrated strong client and project management experience, having to manage multiple analytical projects simultaneously and foster collaboration with colleagues.
* The candidate must have experience managing cross-functional teams and/or outside service providers to successfully deliver on analyses with multiple contributors and stakeholders.
* Superior communication and leadership skills are critical in order to develop, propose and convey technical concepts to business customers. Candidate must have demonstrated skills in developing concise and decision driven presentations that will inform decisions made by Senior Leaders.

**Preferred Experience and Skills:**

* **Five plus** years of relevant work experience in commercial analytics within pharmaceutical industry or candidate with a PhD in relevant quantitative field.
* Experience in analyzing HCP and Consumer Digital marketing promotions.
* Experience in using Real World health data to derive patient specific insights is strongly preferred.
* Experience with leveraging geo-spatial data and statistical / machine learning models to predict consumer behavioral patterns and enhance healthcare consumer targets is strongly preferred
* Experience in working with web data to understand consumer behavior is preferred.
* Experience with Python, SQL and various analytical and data mining tools.
* Experience in applying advanced statistical methods, machine learning, linear and non-linear optimization techniques to address business questions.
* Experience in developing and applying metrics related to health care consumer’s medication affordability, adherence and abandonment using longitudinal patient level data.
* Experience with one or more of the following advanced techniques are also desirable: Bayesian data analysis, longitudinal analysis of time series cross sectional data, repeated measures modeling, Hierarchical Linear Modeling, Machine Learning and Data Mining techniques, temporal sequence mining, Neural Networks, Deep Learning, Classification and Regression Trees (CART) and/or Discrete Choice Models.