November 15, 2018

U.S. Citizenship & Immigration Services
Phoenix, AZ 85036

Re: Minimum Education Required for the Promotion Optimization Specialist Position
in the Biopharmaceutical Industry

Dear Sir or Madam:

I have been asked to provide my opinion regarding the standard, minimum educational requirements for a Promotion Optimization Specialist in the bio-pharmaceutical industry. I am pleased to do so. I am the Vice President of Analytics at ConnectiveRx™, a company that works with bio-pharmaceutical manufacturers to commercialize and maximize the benefits of branded and specialty medications. I am also the past President of the Pharmaceutical Management Science Association (PMSA) – a nonprofit organization and the main industry body promoting the use of Management Science in the pharmaceutical industry. Management Science involves research-based principles, strategies, and analytical methods including mathematical modeling, statistics, and numerical algorithms to improve an organization's ability to enact rational and accurate management decisions by arriving at optimal or near optimal solutions to complex decision problems. As past President of PMSA, I presided over a membership consisting of data analytics professionals and leaders working for the major pharmaceutical companies and research institutions in the world, including Novartis, Johnson & Johnson, the University of California, Berkeley, Genentech, Pfizer, AstraZeneca, and Merck, among others.

As President of PMSA, it was my responsibility to ensure that the organization achieved its mission by: (i) raising awareness and promoting the use of management science in the pharmaceutical industry; (ii) fostering the sharing of ideas, innovations, and challenges within the industry; (iii) increasing the overall level of knowledge and skill of pharmaceutical data analytics professionals; (iv) providing training opportunities to ensure the continual growth of pharmaceutical data analytics professionals; and (v) encouraging interaction and networking among peers in this field. I presided over a career center, symposiums, a journal,

and our annual conference which is the premier event for pharmaceutical data science professionals in the world.

My educational background includes a Masters degree in Economics from University of Delhi. In total, I have worked for over 20+ years in the pharmaceutical industry in executive and managerial capacities and have worked with some of the world's leading pharmaceutical companies, including GlaxoSmithKline, Abbevie and Johnson and Johnson.

Over the course of my career, including in my current role, my duties have involved the evaluation and placement of experts in analytics and optimization specializing in the needs of the pharmaceutical industry. As past President of the leading organization for these professionals in the pharmaceutical industry, I am aware of the industry-specific needs and the standard hiring practices for such professionals within pharmaceutical companies. Consequently, I am well placed to speak to the typical educational requirements within the pharmaceutical industry, including at Merck, for a Promotion Optimization Specialist position. I can confirm that the standard industry requirement for this role is an advanced degree in Analytics, Statistics, Engineering or Operations Research.

The role of Promotion Optimization Specialist is very vital in the biopharmaceutical industry which involves some of the most complex and high investment medical products. Promotion Optimization Specialists in the biopharmaceutical industry develop and apply sophisticated metrics to critical business decision making, such as optimal promotion plan, execution strategy, medication affordability, and so on. They develop complex statistical and predictive models on healthcare datasets to assess the return on investment that is critical to help the product reach its financial forecast. In addition to ROI assessments, optimization specialists also use machine learning to identify highly valuable target groups, study their affinity to different channels, and optimize customer engagement.
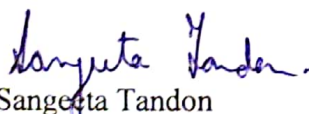
The duties of a Promotion Optimization Specialist in a large corporation such as Merck are particularly complex due to the size and sophistication of the company and the nature of its products. For this reason, Promotion Optimization Specialists in the biopharmaceutical industry must possess an extra layer of knowledge and expertise to apply highly technical knowledge to a very specific and highly regulated industry -- the biopharmaceutical industry, with its own unique specifications, technical requirements, protocols and practices.

Furthermore, the impact of errors in this area can be tremendous on a major bio-pharmaceutical company like Merck. For example, incorrectly increasing the coupon offer to patients by $20 to $40 for a medication can reduce the medication adherence, increase the chance of disease progression and incur a large health care spend later. Allocation of several million dollars in an ineffective promotional channel can incur a significant revenue loss to the company in hundreds of millions of dollars.

As a result of the foregoing, the majority of Promotion Optimization Specialist positions in the biopharmaceutical industry hold an advanced degree in Analytics, Statistics, Engineering or Operations Research. Advanced degree coursework in Predictive Modeling, Decision Modeling, Data Mining, and Project Risk and Cost Management provide the Promotion Optimization Specialist with the specific knowledge needed to perform the complex duties of the position.

In sum, I can confirm that an advanced degree in Analytics, Statistics, Engineering or Operations Research is the standard minimum educational requirement for a Promotion Optimization Specialist in the bio-pharmaceutical industry, and that an individual who does not possess this type of educational background and industry experience would be incapable of performing the duties of the position. If you have additional questions regarding standard hiring practices in the bio- pharmaceutical industry, please do not hesitate to contact me directly.

Sincerely yours,

Sangeeta Tandon
Vice President, Analytics
ConnectiveRx