

# **Molecular Diagnostics**

## **Part I: Technologies & Applications**

**by**

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Professor K. K. Jain is a neurologist/neurosurgeon with specialist qualifications including Fellowships of the Royal Colleges of Surgeons in Australia and Canada. He has trained, practiced, and held academic positions in several countries including Switzerland, India, Iran, Germany Canada and USA. After retirement from neurosurgery, Prof. Jain remains a consultant in neurology. He is also working in the biotechnology/biopharmaceuticals industry and is a Fellow of the Faculty of Pharmaceutical Medicine of the Royal College of Physicians of UK. Currently, he is the CEO of Jain PharmaBiotech.

Prof. Jain's 492 publications include 35 books (6 as editor+ 29 as author) and 50 special reports, which have covered important areas in biotechnology, gene therapy and biopharmaceuticals, biomarkers: proteomics, molecular diagnostics, nanobiotechnology, and personalized medicine. Contributions to MedLink, an accredited continuing education program for neurologists, include 172 articles out of a total of 1250 articles by 450 authors. These articles are updated on a yearly basis. Prof. Jain's earlier books were the first in the areas covered: "Handbook of Laser Neurosurgery" (Charles C. Thomas, Springfield, Ill, 1983) and "Textbook of Hyperbaric Medicine" (1st ed in 1990 and 6th ed by Springer, 2017). His "Textbook of Gene Therapy" was translated into Chinese in 2000. Recent books include "Handbook of Nanomedicine" (Springer 2008, Chinese edition by Peking University Press 2011, 3rd ed 2017), "Textbook of Personalized Medicine" (Springer 2009; Japanese ed 2012; 2nd ed Springer 2015, 3rd ed 2021), "Handbook of Biomarkers" (Springer 2010; Chinese ed, Chemical Industry Press 2016, 2nd ed 2017), "Drug-induced Neurological Disorders", 4th ed (Springer 2021), "Handbook of Neuroprotection" (Springer 2011, 2nd ed 2019), "Applications of Biotechnology in Cardiovascular Therapeutics" (Springer 2011), "Applications of Biotechnology in Neurology" (Springer 2013), and "Applications of Biotechnology in Oncology" (Springer 2014). He has also edited 3 editions of "Drug Delivery System" (Springer 2008, 20012 and 2020) and "Applied Neurogenomics" (Springer 2015). Lectures on personalized medicine given at Kazakh National Medical University, Kazakhstan were translated into Russian and published as a book "Essentials of Personalized Medicine" (LITERRA Publishing House, Moscow, 2019). Currently, he is writing "The Handbook of Alzheimer Disease" to be published by Springer in 2022.

## ABOUT THIS REPORT

Prof. Jain wrote the first commercial report on DNA Diagnostics in 1995, which was published by PJB Publication, London. This was updated in 1997 as Molecular Diagnostics I and the next edition, Molecular Diagnostics II, was published in 1999 – both by Decision Resources Inc, USA. All the three versions of the reports were well accepted and sold widely. The current version was originally published by Jain PharmaBiotech in 2001 and is constantly updated and revised since then. Not only was this the first such report on molecular diagnostics, it is also the longest continuously published report on this topic (>25 years). It is also the most comprehensive and detailed report on this topic containing profiles of the largest number of companies involved in molecular diagnostics.

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