



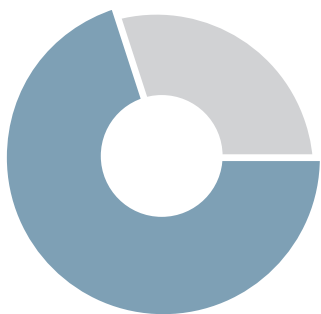
NEUROSCIENCE



NAVIGATING NEUROSCIENCE COMPLEXITIES

PPD's neuroscience team is driven to help clients manage the complex world of nervous system disorders in order to help deliver life-changing therapies. While the neuroscience environment is moving at a rapid pace with shortening development times, our clinical team and dedicated medical professionals are prepared to effectively navigate our clients' trials in a range of indications.

With clinical, scientific and medical expertise in all phases of development, we have a comprehensive understanding of the subjective and objective outcome measures across the range of neuroscience indications.



PPD HAS WORKED ON

7 OF THE **10**

FDA-APPROVED
**NEUROSCIENCE
THERAPIES**

SINCE 2016

A GLOBAL TEAM OF NEUROSCIENCE EXPERTS

PPD's dedicated neuroscience team is comprised of senior medical and operational professionals including seven board-certified physicians with specialties including neuroscience, psychiatry and ophthalmology. This cross-

functional team also includes experts in trial management, pharmacovigilance, regulatory, medical writing, biostatistics and data management who partner together to deliver successful outcomes for complex neuroscience trials.



310+
studies

in

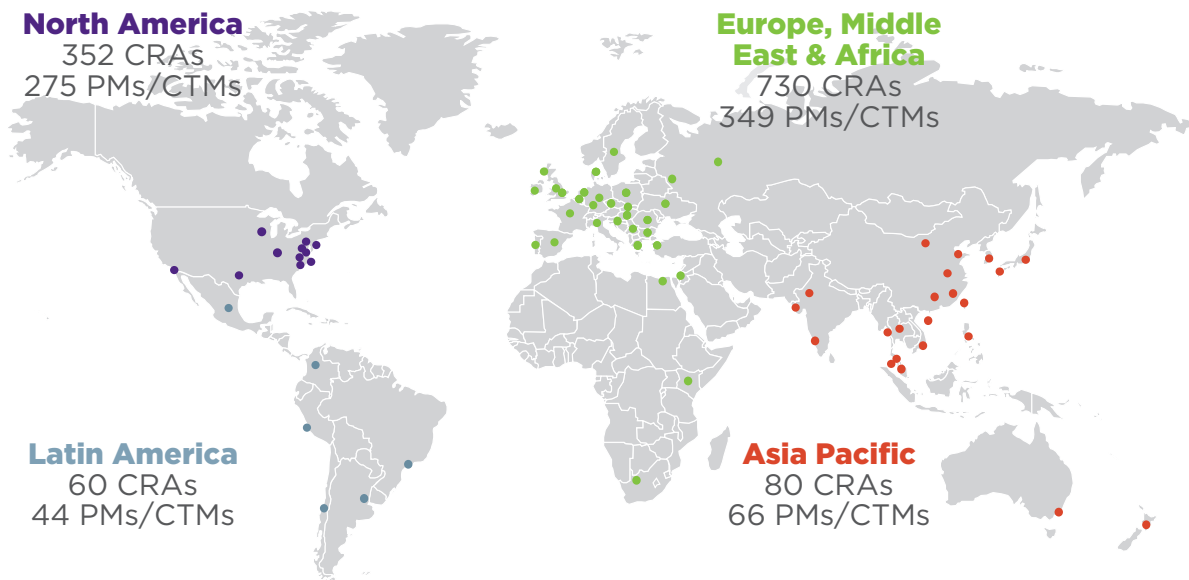


8,900+
sites worldwide

with

49,900+

patients in the past five years



THERAPEUTIC EXPERTISE ACROSS

Multiple Sclerosis

Our team of more than 520 members experienced in multiple sclerosis (MS) and four full-time neurologists bring a deep disease understanding to each study. This team has been involved in the development of the top-selling MS therapies including: five of the six top-selling MS drugs, three of the four approved MS drugs in the past five years, and three of the four top-selling drugs in 2015.

Neurodegeneration

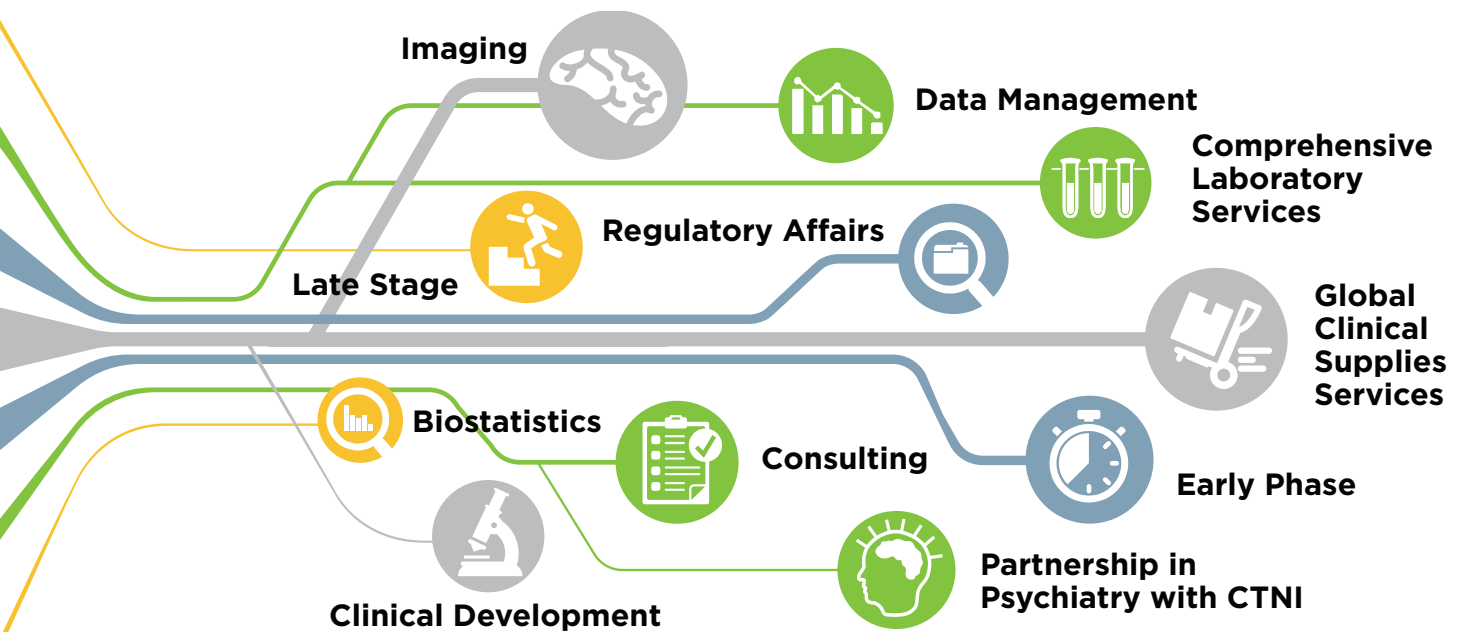
Within the past five years, PPD has conducted 13 global Alzheimer's disease studies, including studies in early Alzheimer's disease and mild cognitive impairment. Additionally, we have extensive global Parkinson's disease experience that includes 13 studies conducted in the past five years across various phases, ranging from early to advanced Parkinson's.

WIDE-REACHING NEUROSCIENCE EXPERIENCE AND SERVICES

With experience conducting more than 310 studies covering a broad range of neurological, psychiatric and pain disorders within the past five years, our team of drug development professionals can expertly manage neuroscience trials.

From feasibility studies and protocol design to simultaneous multinational submissions and study execution, PPD has the global infrastructure, resources, integrated technologies and commitment to quality to help ensure successful clinical outcomes.

FULL-SERVICE NEUROSCIENCE CAPABILITIES



THE NEUROSCIENCE LANDSCAPE

Pain

PPD has managed more than 30 acute and chronic pain trials in the past five years across a variety of therapeutic areas, including multiple drug delivery methods. Our use of various data collection technologies allow for rapid retrieval, analysis and delivery of quality data for single country or global studies. Our key pain experience includes: acute pain, chronic pain, neuropathic pain and migraine pain.

Psychiatry

PPD assists clients in isolating the unique challenges associated with psychiatric studies such as subjective assessments, inter-rater reliability, scale validation and placebo response rates. Over the past five years, we have conducted more than 50 studies from schizophrenia to anxiety, expertly overseeing global programs of all sizes.

PARTNERSHIPS THAT DRIVE SUCCESS

PPD's established partnerships with Synexus, a global network of more than 185 sites, and Acurian, a leading patient recruitment organization, provide a comprehensive, integrated enrollment solution for neuroscience trials. Synexus has deep neuroscience experience that enables faster recruitment and enrollment, having enrolled thousands of patients in a wide-range of neuroscience studies. We continue to innovate and drive global expansion of our total enrollment platform to deliver industry-leading global patient recruitment capabilities to our clients.



Ophthalmology

We offer a clinical operations and therapeutic focus on ophthalmology studies with experienced project teams dedicated to all ophthalmic programs. Our professionals are experts in facilitating multinational submissions and expeditious agency reviews and have global experience in: age-related macular degeneration, conjunctivitis, dry eye, glaucoma, keratitis, lens opacification and intraocular lenses (IOLs), diabetic macular edema, retinal vein occlusion and geographic atrophy.

Rare Diseases

Our team has experience navigating the unique challenges associated with rare neuroscience disorders and works to deploy specialized and flexible development strategies for each trial. Team members collaborate with rare disease key opinion leaders to drive outcomes by working directly with PPD's Rare Disease and Pediatric Center of Excellence. The team's rare disease experience includes: ophthalmology, sleep, pain and neurology.



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