

PARKINSON'S DISEASE (PD)

Medical Imaging Expertise

Clinical and research applications of functional neuroimaging to Parkinson's disease (PD) and other parkinsonian disorders have advanced over the past decade, leading to novel diagnostic methods and contributing to the development of new therapies. MRI, PET, and SPECT are increasingly being used to study the molecular processes underlying PD symptoms, to detect subclinical and early disease, and to monitor disease progression.



 **MDs with clinical expertise**



PhD scientists with expertise for image acquisition and analysis



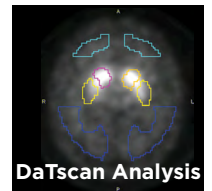
Key clinical and academic advisors for PD imaging

Quantitative Analysis

- Striatal Binding Ratio (SBR) and SUVR approaches
- Kinetic analysis (Patlak and other approaches)
- Freesurfer and template-based ROI methods



MRI/SPECT



DaTscan Analysis

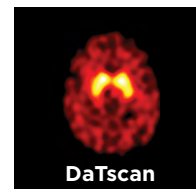
High Quality Data - Validated QC Workflows

Visual checks

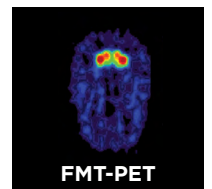
- Adequate counts
- Artifacts
- Uptake patterns
- Correction measures

Qualification of SPECT/PET centers

- Phantom scans
- Protocol validation and adherence
- Tracer dose/timing



DaTscan



FMT-PET

Neuroimaging Modalities

SPECT and PET

- Eligibility and efficacy assessments
- DaTscan (^{123}I -FP-CIT)
- Dopascan (^{123}I -beta-CIT)
- ^{18}F -fluoro-L-DOPA (FDOPA)
- ^{18}F -6-fluoro-L-m-tyrosine (FMT)
- $^{99\text{m}}\text{Tc}$ -TRODAT-1
- MIBG (^{123}I -Iobenguane or AdreView)
- Novel radiotracer support and management

MRI

- Eligibility assessment
- Safety monitoring
- Volumetric MRI
- Functional MRI (fMRI)
- Diffusion Tensor Imaging (DTI) and Free Water Fraction
- Arterial Spin Labeling (ASL)
- Neuromelanin and iron-sensitive MRI

With 30+ years of experience across hundreds of neurodegenerative disease clinical trials, Bioclinica delivers proven neuroimaging science and operational expertise to accelerate your neuroscience drug program.