



Accelerating therapeutic  
development for  
Huntington's disease

# *Why CHDI reached out to C-Path*

- or -

*How learning to play chess can inform efforts to bring effective  
treatments for HD to patients*

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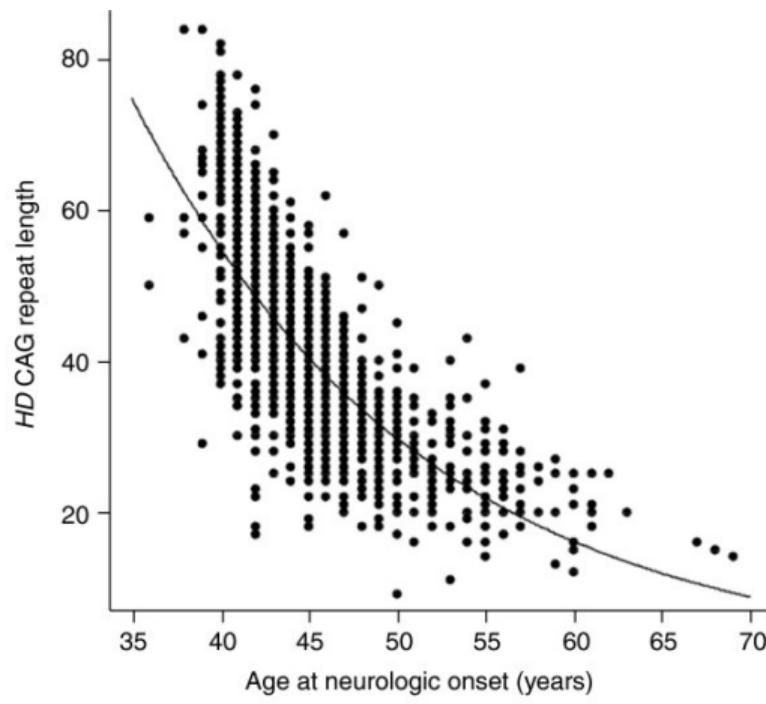
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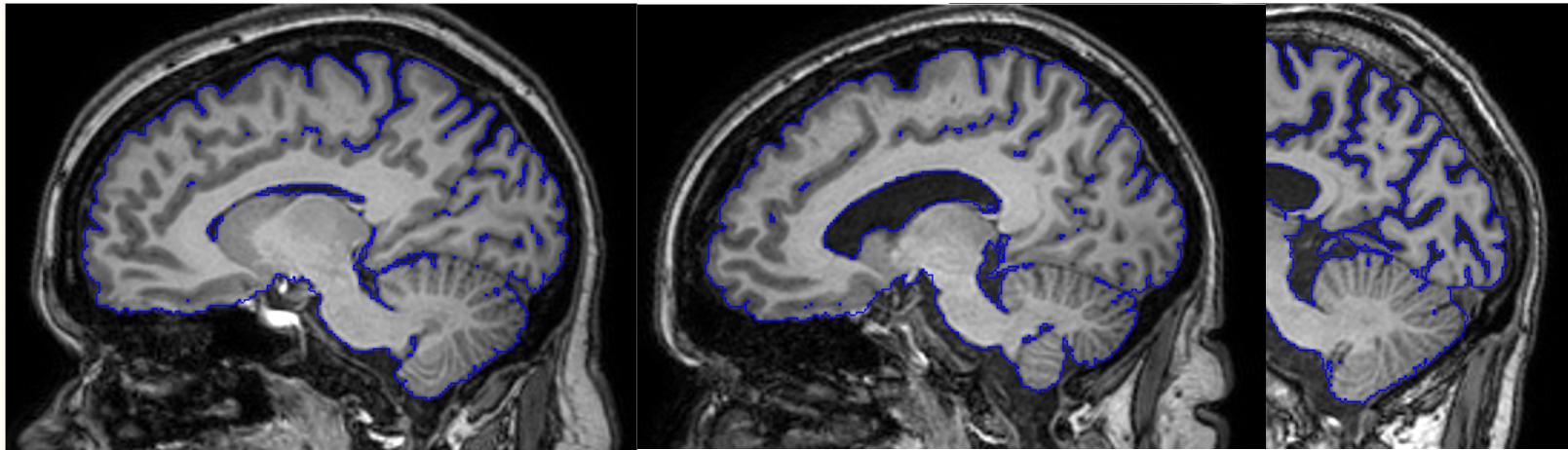
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Control

Pre Manifest

HD

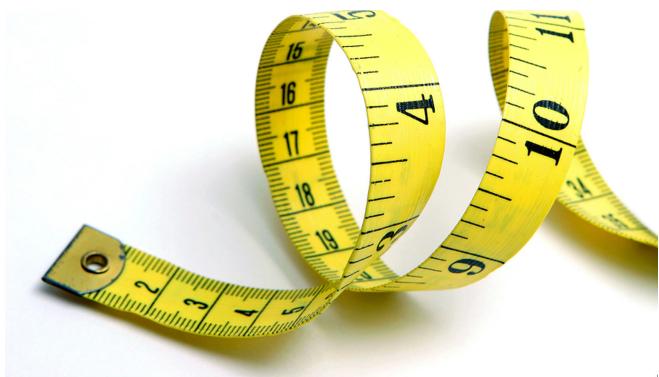
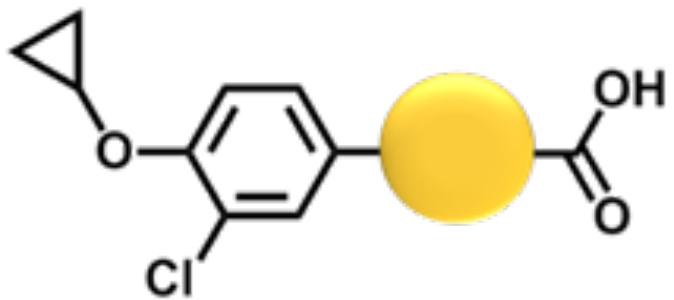
TRACKHD ➤



# BOBBY FISCHER TEACHES CHESS







## Estimates for a group that is all gene-expanded, with CAG lengths known

CAG age Model, 80% power, alpha = .05, 5% annual censoring

Magnitude of Therapeutic Effect

Years followed	Magnitude of Therapeutic Effect				
	10%	20%	30%	40%	50%
3	19,509	4,690	1,997	1,071	649
4	13,669	3,297	1,409	759	462
5	10,321	2,496	1,070	578	353
6	8,196	1,986	853	462	283

*circa* 2004

# Guidance for Industry

## Qualification Process for Drug Development Tools

*Additional copies are available from:*

*Office of Communication*

*Division of Drug Information, WO51, Room 2201*

*Center for Drug Evaluation and Research*

*Food and Drug Administration*

*10903 New Hampshire Ave.*

*Silver Spring, MD 20993*



# DDT-HD

January 26, 2011

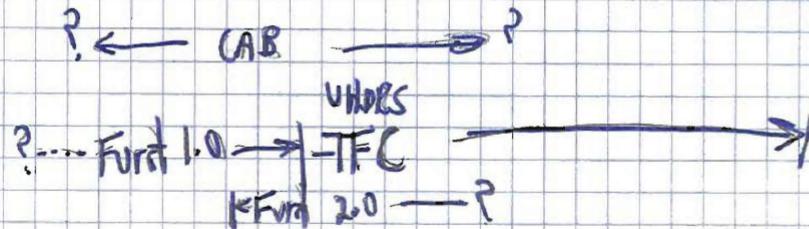
Clinical

Symgate

Pharmacodynamic

Predictive

Prognostic



HT Assay

"Disease Finder"

CNA

← "Subclinical HD" → ↑ ← "Clinical HD" →

18 yrs

Age

Motor Diagnosis

## RESEARCH ARTICLE

# Validation of a Prognostic Index for Huntington's Disease

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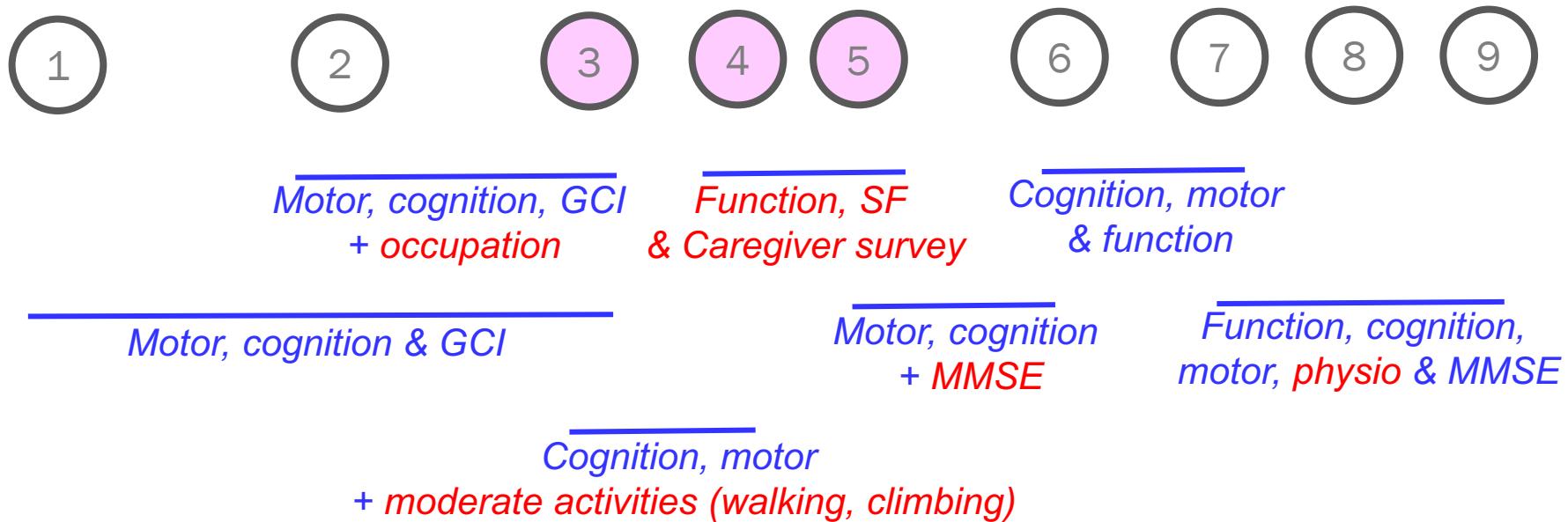
<sup>8</sup>*Laboratory of Clinical Pharmacology and Therapeutics, University of Lisbon, Lisbon, Portugal*

**ABSTRACT:** **Background:** Characterizing progression in Huntington's disease is important for study the natural course and selecting appropriate parti-

total motor score, Symbol Digit Modalities Test, baseline age, and cytosine-adenine-guanine expansion. External predictive performance was very good for the



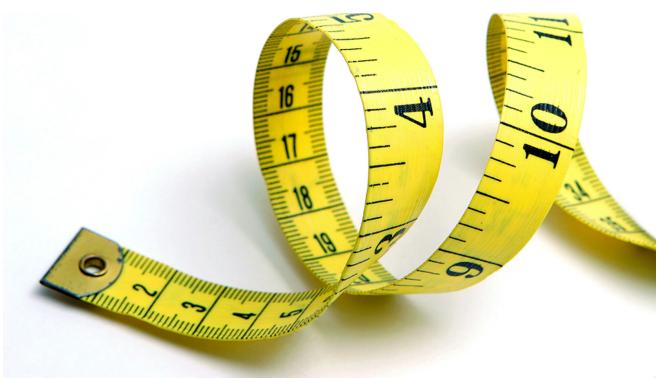
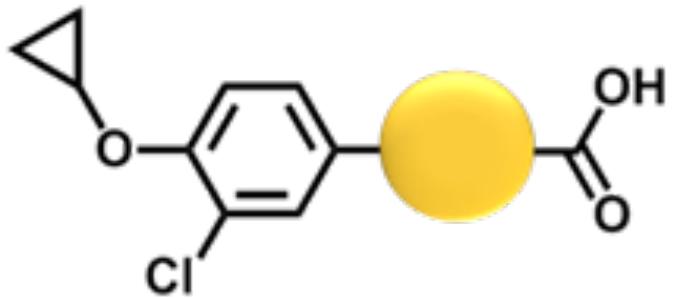
# Phenotype progression through States 1 - 9



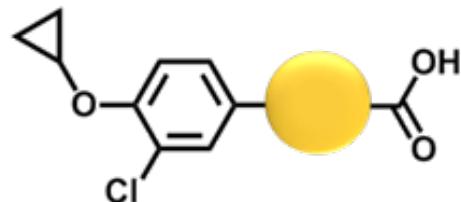
*abc: new outcome measures*

*Distance between states proportional to empirical durations in years*





# A word on strategy... and hope



$10^{20}$



$10^{120}$

