

Kocisko 1994

first cell-free conversion

recPrPC incubated with purified, partially GdnHCl-denatured PrPSc

sonication 



shaking

Saborio 2001

PMCA

infected brain homogenate + uninfected brain homogenate + incubation/sonication cycles
PK resistance readout

Zou & Cashman 2002

acid, detergents and shaking can cause PrPC to spontaneously adopt PrPSc-like properties

Castilla 2005

demonstration that PMCA can amplify infectivity indefinitely

Legname 2004

first synthetic prions infectious to transgenic mice

Rogers 1965

Thioflavin T can detect amyloid

Colby 2007

amyloid seeding assay (ASA)
ThT to detect prion conversion

Saa 2006

refinement of PMCA protocol

Deleault 2007

minimal co-factors and synthetic prions
PMCA on PrPC + lipids + RNA yields first synthetic prion infectious to wild-type mice

Atarashi 2007

"rPrP-PMCA"
recPrPC + infected brain homogenate

Atarashi 2008

QuIC

whole infected brainhomogenate + purified recPrPC subjected to shaking, detected with thioflavin T

Wang 2010

synthetic recPrP prions
PMCA on recPrP + RNA + POPG first synthetic prion made from recPrP infectious to wild-type mice

Atarashi 2011

RT-QuIC

endpoint titration using QuIC on serial dilutions

McGuire 2012

validation of RT-QuIC as diagnostic test for CSF

Shi 2013

qRT-QuIC

alternate readout without using serial dilutions



clinical use