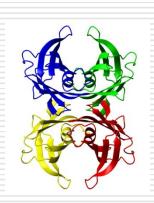
# **Tafamidis Meglumine**

Potential Disease Modifying Treatment for TTR Amyloidosis

## Dr. Marcia Waddington-Cruz

Chief, Neuromuscular Diseases Unit University Hospital, Federal University of Rio

Amyloidosis Support Group Patient Meeting October 31 – November 1, 2009 Chicago

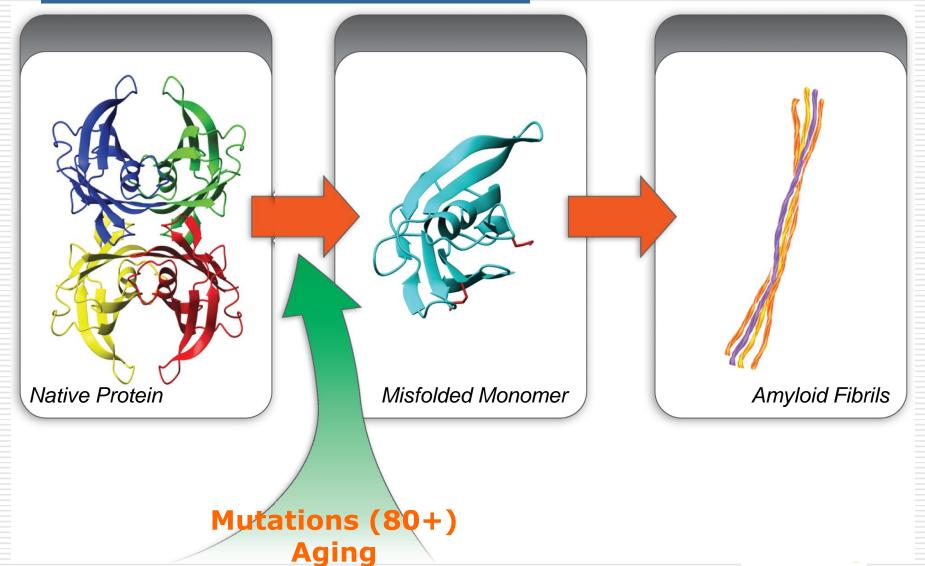


## **Tafamidis**

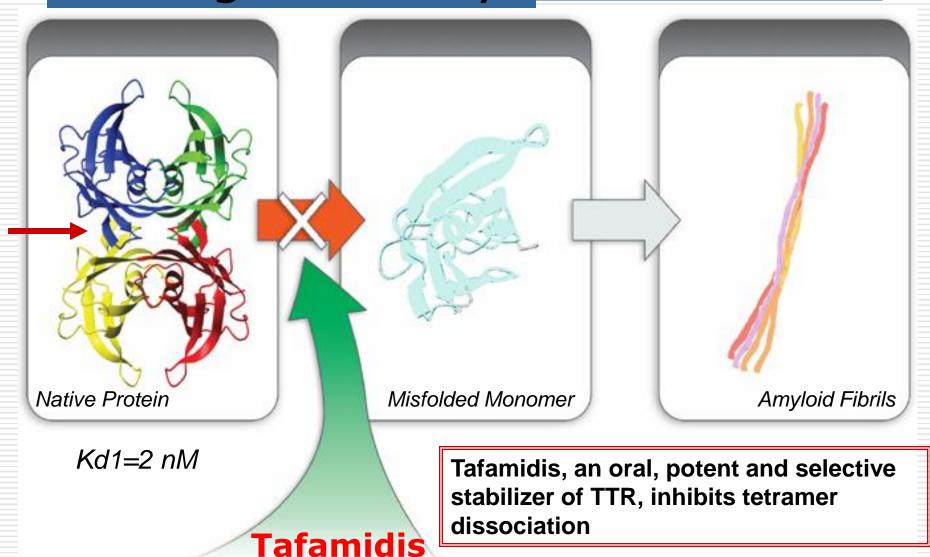
- Tafamidis, previously known as Fx-1006A, a selective and potent stabilizer of transthyretin (TTR)
  - Binds to the TTR protein and stabilizes the correctly folded protein
  - Inhibits amyloid formation in the test tube
  - No "off-target" pharmacology (e.g. no NSAID activity)
  - Oral, once daily, first in class compound
- Being evaluated as a disease modifying treatment for TTR amyloidosis (ATTR)
- Being developed by FoldRx Pharmaceuticals, Inc., Cambridge MA



# Cause of TTR Amyloidosis



# Halting TTR Amyloidosis



# Tafamidis Development Program

- Dedicated to understanding of the natural history of TTR amyloidosis
  - Conducted natural history study in patient with TTR amyloid cardiomyopathy (TRACS)
    - Support the design of subsequent treatment studies
  - Conducted study evaluating appropriateness of clinical endpoints in assessing disease severity in patients with TTR amyloid polyneuropathy
    - Support the endpoints chosen in the treatment studies
  - Supporting a number of academic run research efforts (for example – improving early diagnosis)



# Tafamidis Development Program

- Dedicated to understanding of the effects of tafamidis on disease progression in patients with TTR amyloidosis
  - Recently completed Phase II/III trial in patients with V30M TTR amyloidosis
  - Ongoing clinical trials in patients with:
    - ☐ V30M TTR amyloidosis
    - Non-V30M TTR amyloidosis
    - V122I or wild-type TTR amyloid cardiomyopathy



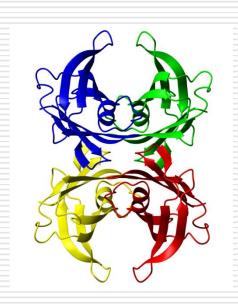


### Fx-005

Safety and Efficacy of Orally Administered Tafamidis in Patients with Transthyretin Familial Amyloid Polyneuropathy

> A Phase II/III, Randomized, Double-blind, Placebo-Controlled Study

> > Key Results



## Fx-005 Study Design

- Randomized, Placebo-controlled, Multi-center Study
  - 8 international sites
- 128 patients with V30M TTR amyloidosis (1:1 randomization)
  - 20 mg soft gelatin capsule once daily; placebo
- Key inclusion criteria:
  - V30M mutation
  - Positive amyloid biopsy
  - Documented peripheral and/or autonomic neuropathy (stage 1 and early stage 2)
- Key exclusion criteria:
  - Prior liver transplant
- Treatment duration 18 months



## Fx-005 Assessments

#### Main Assessments

- NIS-LL Neuropathy Impairment Score Lower Limb
  - Scores the neurological exam of the legs, according to muscle weakness, sensory abnormalities and loss of reflexes
- Norfolk QOL-DN Quality of Life
  - Patient questionnaire that assesses the impact of the various aspects of the neurologic disease on his/her quality of life

#### Other Assessments

- Objective measures of nerve function, including nerve conduction studies and quantitative sensory testing
- Modified Body Mass Index (mBMI) a measure of the wasting aspect of this disease



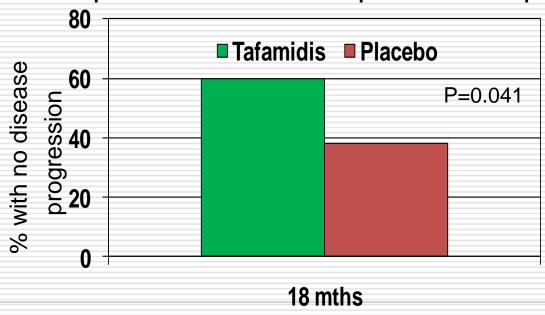
## Fx-005 Results

- Of the 128 patients enrolled, 91 (71%) completed the study
  - Majority of the patients who discontinued from the study (26/37, 70%) did so to undergo liver transplantation 13 patients in each treatment group
  - Tafamidis was well tolerated only 3 patients in each treatment group discontinued the study due to a side effect
- Of the 91 patients completing the study, 86 are participating in the open label extension study (Fx-006)



## Fx-005 Results - NIS-LL Responders

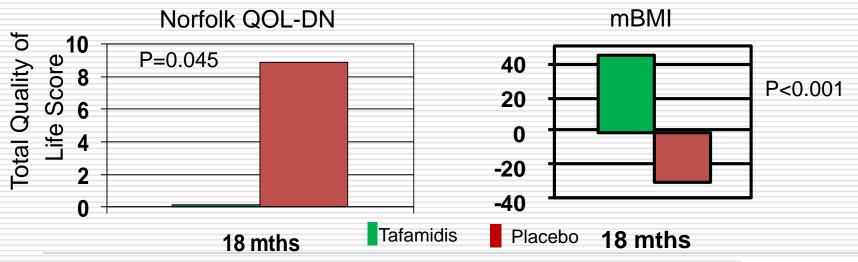
- Tafamidis maintained neurologic function:
  - 60% of tafamidis patients completing the study per protocol had no disease progression – that is, no worsening of their neurologic function compared with 38% of patients on placebo





## Fx-005 Results Quality of Life and Nutritional Status

- □ Tafamidis reduced burden of disease:
  - Those patients receiving tafamidis maintained their quality of life, and experienced an improvement in nutritional status,
  - Those patients not on active treatment (placebo) had a worsening of their quality of life, and a deterioration of their nutritional status





## Fx-005 Results

- Other measures of nerve function demonstrated that tafamidis treatment resulted in less deterioration
  - □ 50 80% less worsening of nerve function
- The side effects reported in the tafamidis group were similar to those reported in the placebo group



## Fx-005 Conclusions and Next Steps

- Patients with V30M TTR amyloidosis who received 18 months treatment with tafamidis experienced
  - Significantly less disease progression
  - Maintained quality of life
  - Side effects similar to placebo
- A US New Drug Application for tafamidis is being planned for second half of 2010



# Tafamidis Additional Treatment Studies

- ☐ Fx1A-201:
  - Open label, tafamidis 20 mg once daily, 12 months
  - Patients with TTR amyloidosis due to mutations other than V30M
  - 21 patients enrolled (enrollment is complete)
- Fx1B-201:
  - Open label, tafamidis 20 mg once daily, 12 months
  - Patients with TTR amyloid cardiomyopathy due to V122I or wild-type TTR
  - 35 patients enrolled (enrollment complete)
- Data Expected first half 2010



# **Thank You for your Attention**



