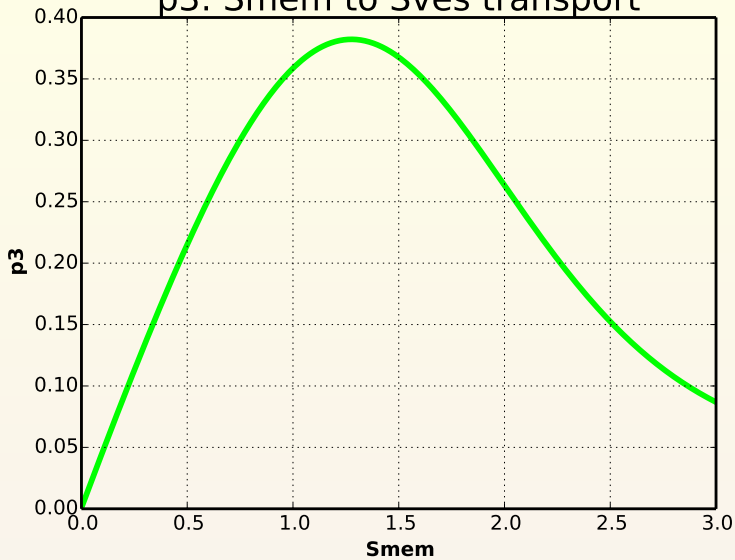


p3: Smem to Sves transport

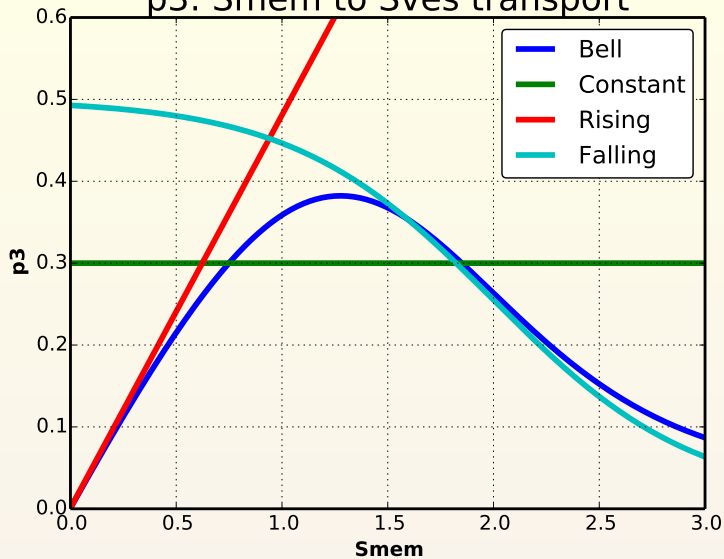


# Why is p3 a bell shaped response?

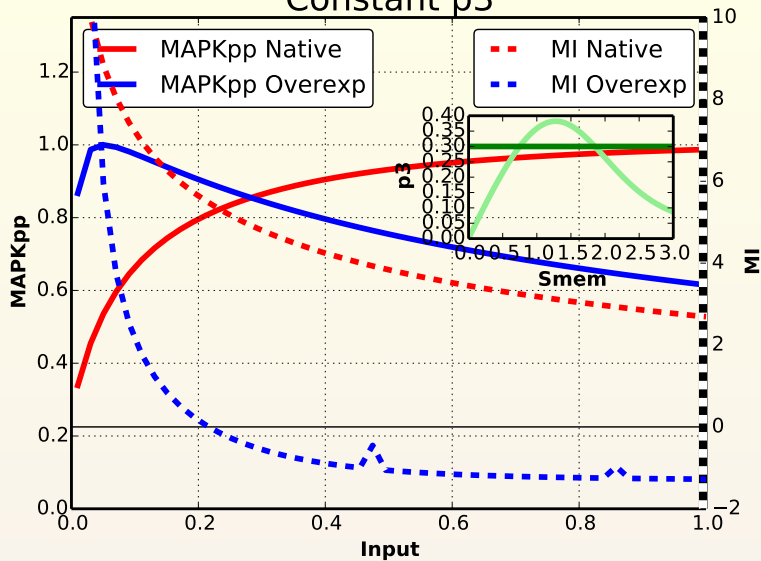
- Each part of the bell shaped curved is simulated to justify its use
  - Constant term
  - Linear rising term
  - Just the falling side
  - Bell shape
    - by combining the rising and falling terms

*this is a test  
another line*

### p3: Smem to Sves transport



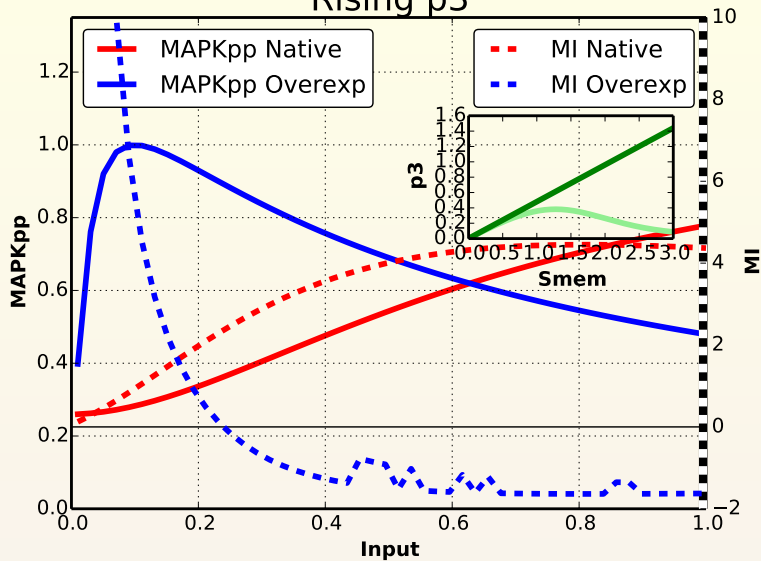
# Constant p3



# Results for constant p3

- At native levels, we get a saturating increase in MAPKpp, producing a negatively sloping MI curve
  - Experimentally MI is constant w.r.t. dose
- At overexpressed levels, the simulation only produces negative MI values
  - Experimentally MI goes from negative to positive

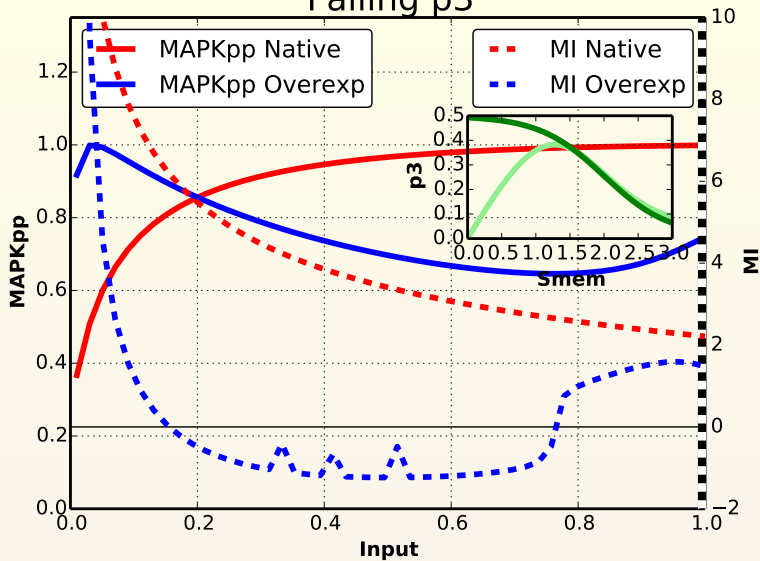
# Rising p3



## Results for rising p3

- At native levels, MAPKpp now rises linearly with dose, producing a flat MI response since it is the derivative
  - This is what is observed experimentally
- At overexpressed levels, the simulation still only produces negative MI values
  - Experimentally MI goes from negative to positive

## Falling p3

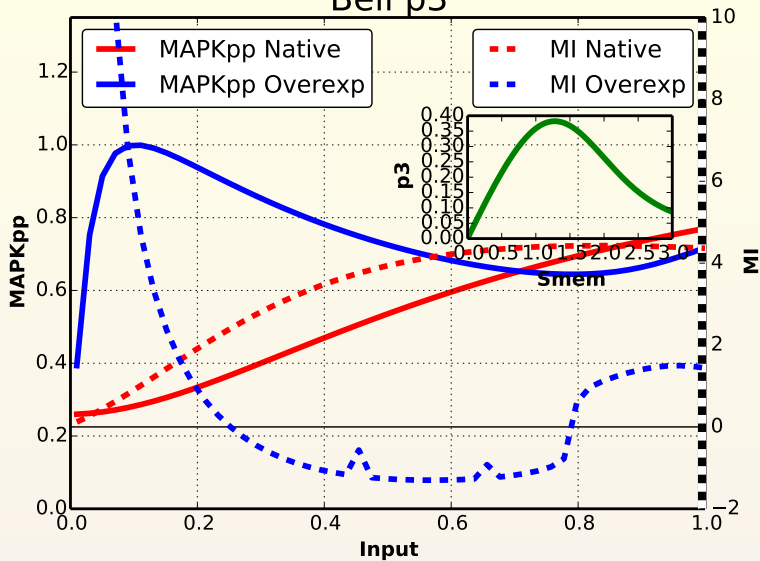




## Results for falling p3

- At native levels, MAPKpp saturates rapidly just like the constant case, producing a decreasing MI response
  - MI should be constant
- At overexpressed levels, MAPKpp is now able to rise at high inputs after falling, producing a MI response that goes from negative to positive
  - Experimentally MI goes from negative to positive

# Bell p3



## Results for bell shaped p3

- Now the experimental results can be satisfied at both expression levels
- At native levels, MAPKpp rises linearly, producing constant MI
- At overexpressed levels, MAPKpp has an inverted bell response, producing a MI curve that changes sign