

# Introduction to L<sup>A</sup>T<sub>E</sub>X

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## Abstract

The abstract text goes here.

## 1 Introduction

- Time course of pS6K in AA and AA + rapamycin conditions [? ]
- Rheb activates AMPK and reduces p27 in TSC2 null cells which in turn reduces cdk2 [? ]
- Rheb is constitutively active in TSC2 knockout cells [? ]
- In TSC2 null cells, down regulating Rheb down regulated mTORC1 and s6k
- TSC2 is a GAP for Rheb [? ]
- The more TSC2 in the system the more Rheb that is hydrolysed [? ]
- Rheb-GTP is an activator of mTORC1, measured by an increase in S6K and 4EBP phos
- The more RhebGTP present the more mTORC1 activation and S6K/4EBP phos [? ]

### 1.1 [? ]

[? ]

## 2 Papers left to read

- Inoki2003 ampk phos tsc2
- insulin causes phos of s6k
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## 2.1 Ideas for language extension

Define conditions within the language? Keywords and language useage for end user:

- Oscillations x: Look for oscillations in x
- transient increasing x: Look for a transient increasing curve
- $x@t=5 \wedge x@t=10$
- $\max x@t=(0, 100) \wedge 50$
- 
- define condition name Insulin: 1, AA: 0
- define condition combinations name Insulin: 1, AA: 0
- Then to reference the condition:
- all  $x[name]@t=(0,100) \wedge \max x[other\_name]@t = (0, 100)$