

The logo of KU Leuven, featuring the text "KU LEUVEN" in white, bold, sans-serif capital letters on a dark blue rectangular background. A light blue vertical bar is on the left side of the rectangle.

KU LEUVEN

BIO-MOLECULAR MODEL BUILDING

Exam Exercise

Spring 2015

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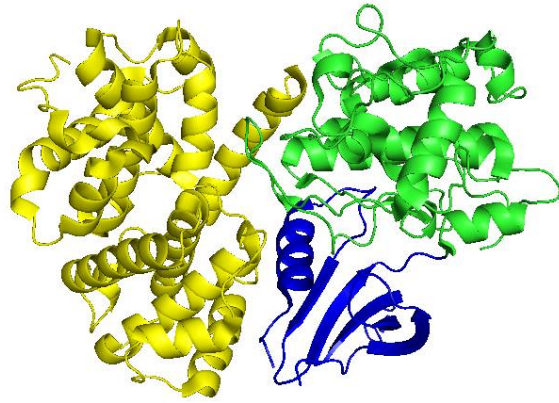
May 14, 2015

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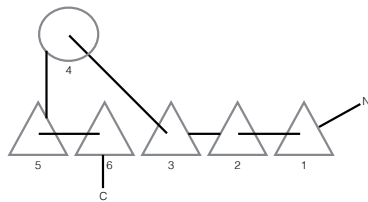
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1 Question 1 - Kinases

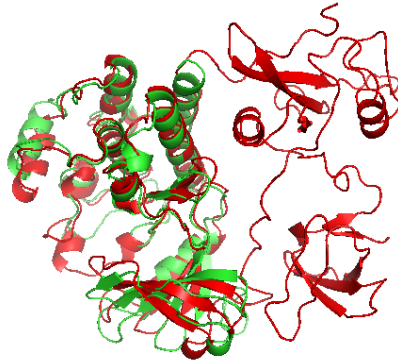
1.1 Part a



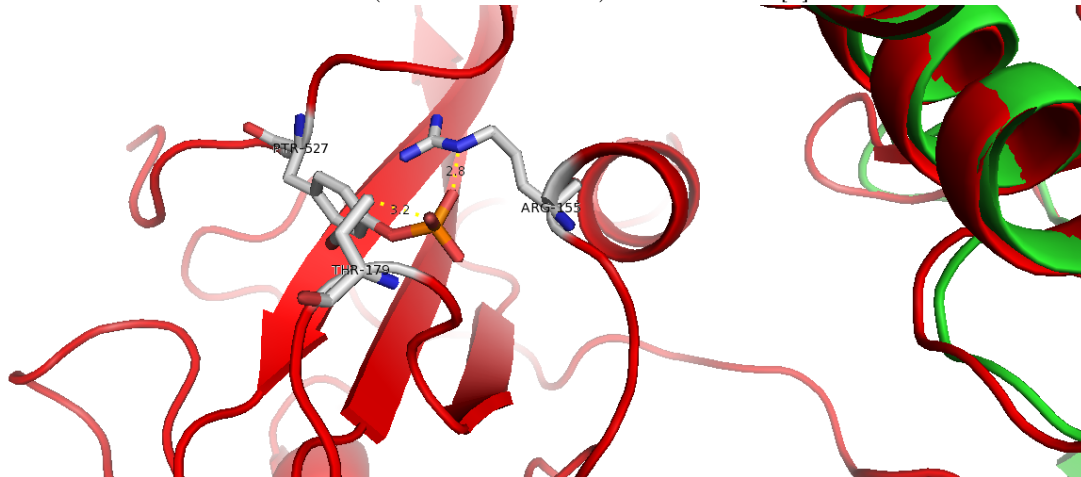
1.2 Part b



2 Question 2 - Kinase active/inactive forms

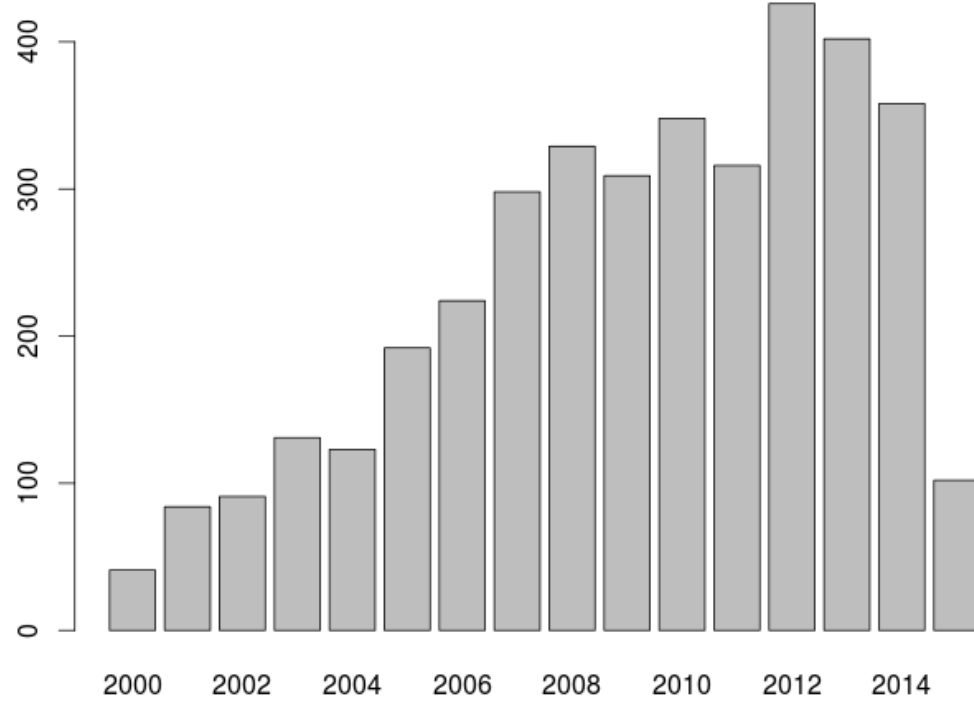


The role of regulatory domains in the kinases are to induce conformational changes that switch the kinase from one form (inactive or active) to the other [1].



3 Question 3 -

```
> table(years)
years
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015
  41   84   91  131  123  192  224  298  329  309  348  316  426  402  358  102
> barplot(table(years))
```



References

- [1] Huse M. and Kuriyan J. The conformational plasticity of protein kinases. *Cell*, 2002.