

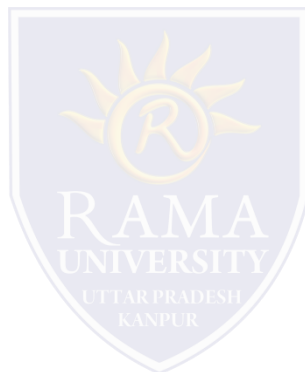


**FACULTY OF ENGINEERING AND  
TECHNOLOGY**

**Department of Biotechnology**

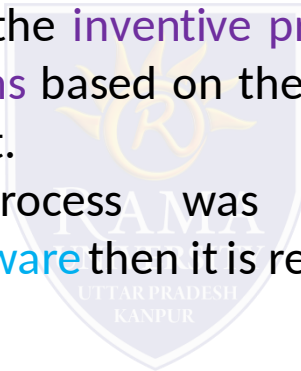
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## What is CADD



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- Drug design is the **inventive process** of finding **new medications** based on the knowledge of a biological target.
- If the same process was done by using **Computer/Software** then it is referred as **CADD**



## Why CADD...?

- Drug Discovery today are facing a serious challenge because of the **increased cost** and **enormous amount of time taken to discover a new drug**, and also because of **rigorous competition amongst different pharmaceutical companies**.

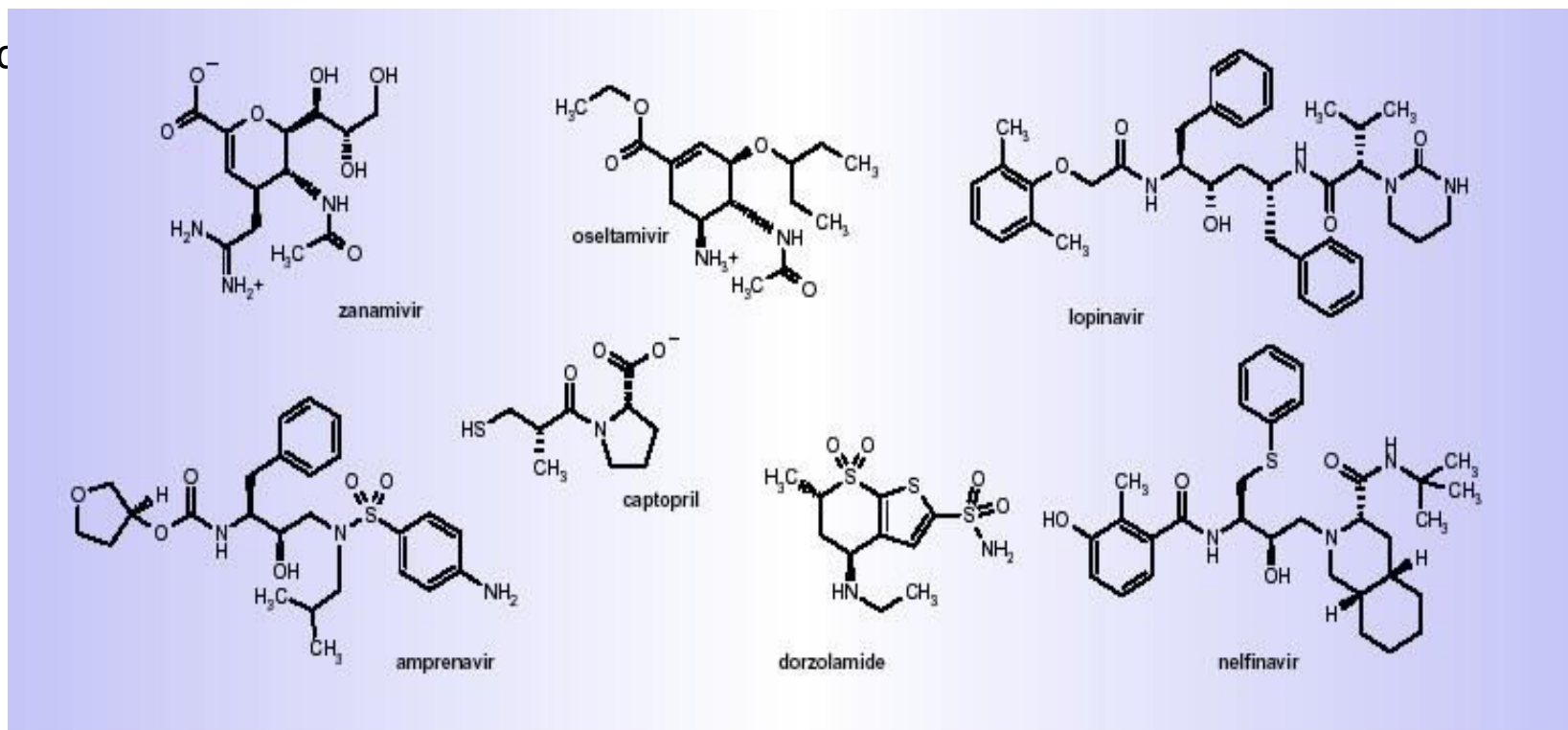


Some of the earliest examples of approved drugs that owe their discovery in large part to the tools of CADD include the following:

- ✓ Carbonic anhydrase inhibitor **Dorzolamide** used to treat glaucoma (Vijayakrishnan 2009)
- ✓ The angiotensin-converting enzyme (ACE) inhibitor, **Captopril**, an antihypertensive drug (Talele et al., 2010)
- ✓ Three therapeutics for the treatment of human immunodeficiency virus (HIV): **Saquinavir**, **Ritonavir**, and **Indinavir** (Van Drie 2007)
- ✓ **Tirofiban**, a fibrinogen antagonist (Hartman et al., 1992)

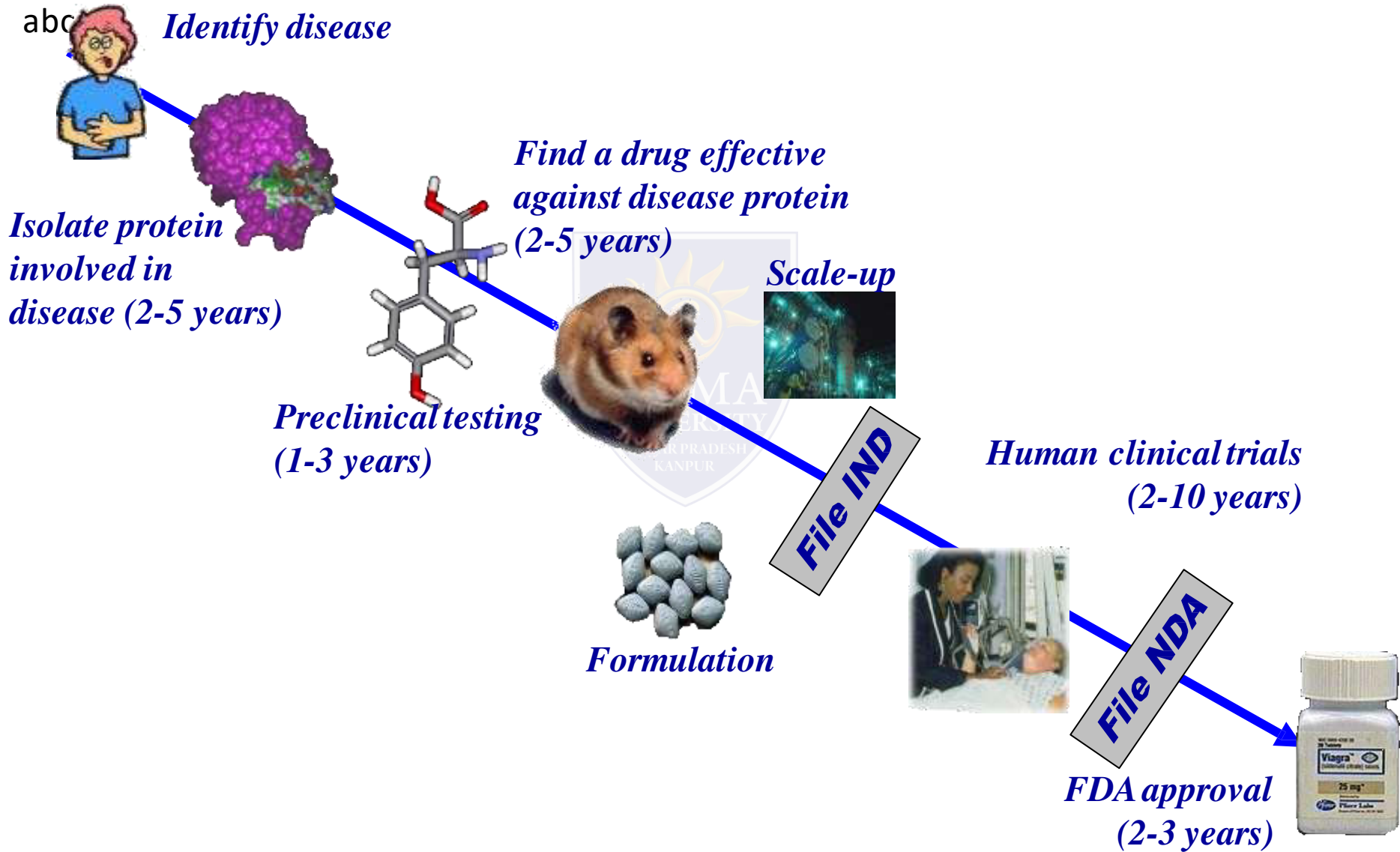
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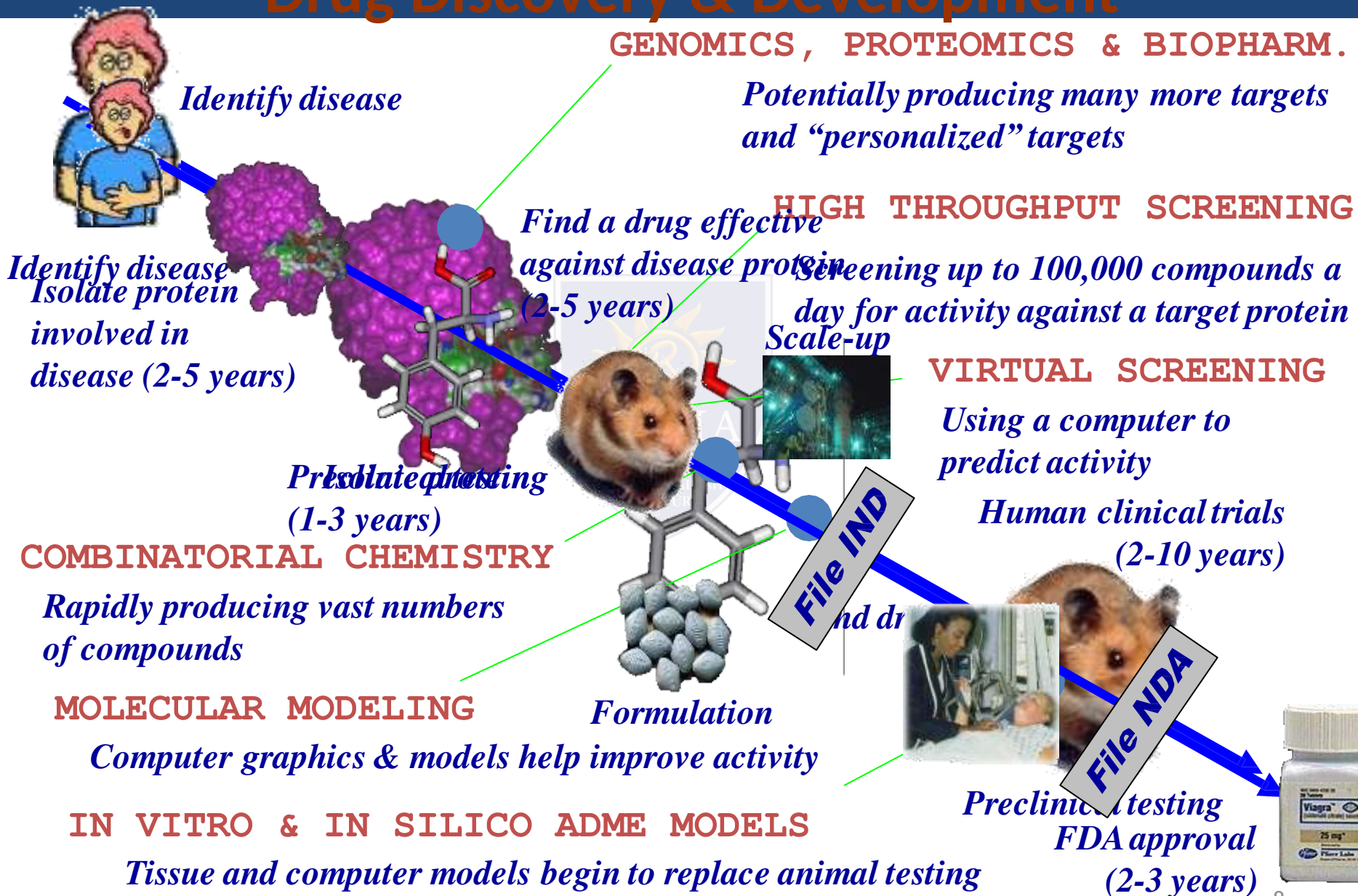


Some of the earliest examples of approved drugs that owe their discovery in large part to the tools of CADD

# Drug Discovery & Development



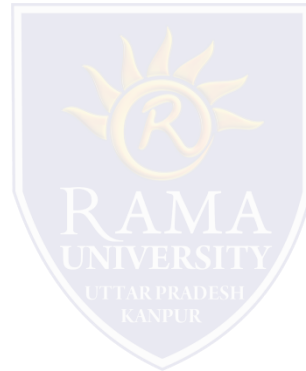
# Technology is impacting this process Drug Discovery & Development





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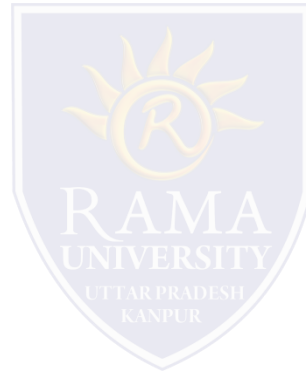
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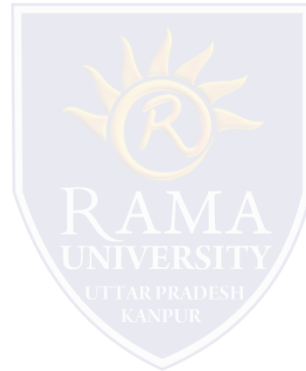
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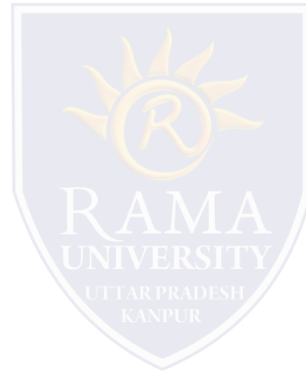
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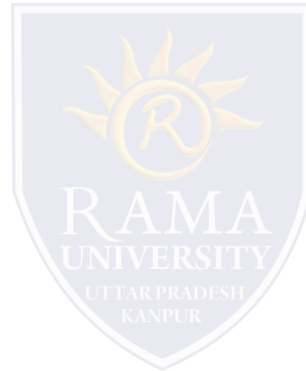
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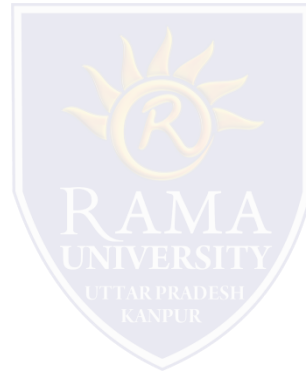
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# MCQs

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