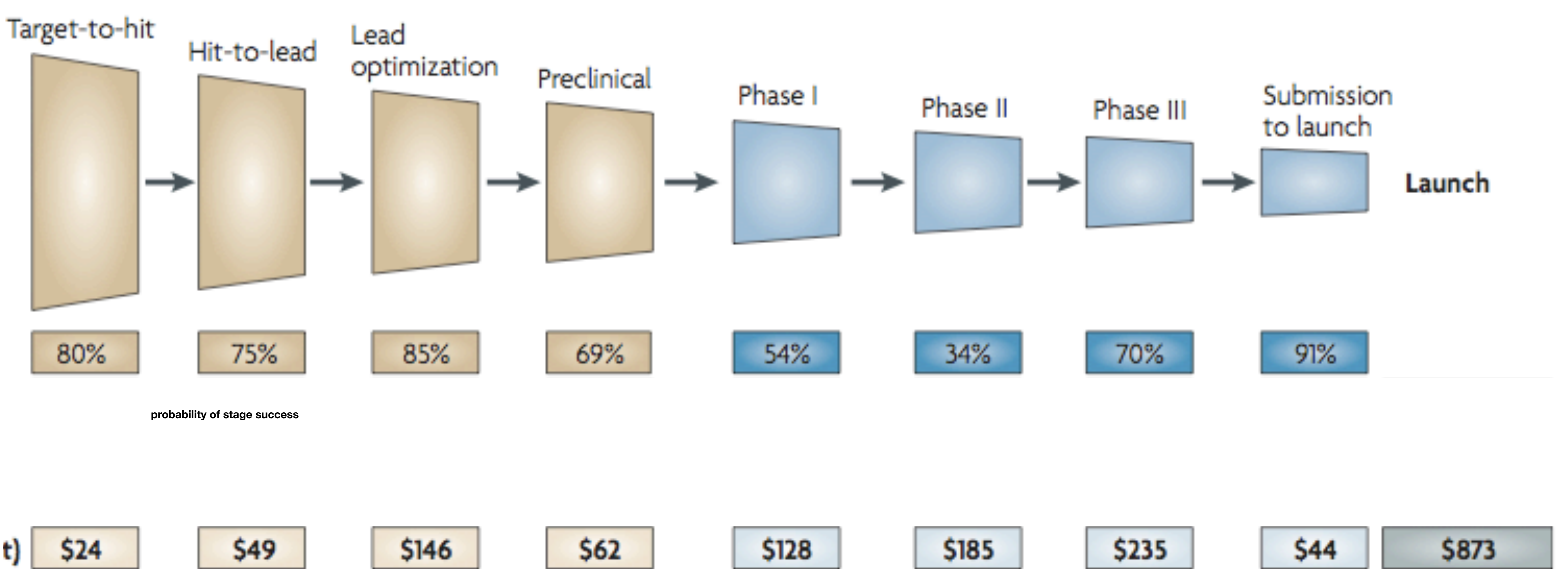


Drug discovery is expensive and often fails





Chodera et al. Curr. Op. Struct. Bio. 2011, 21 (2), 150–160.
for updated numbers see
Pammolli et al. bioRxiv 2019, 670471. <https://doi.org/10.1101/670471>.

safety

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large-scale

ceis and animals

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BILLION-

THE QUEST FOR THE PERFECT DRUG

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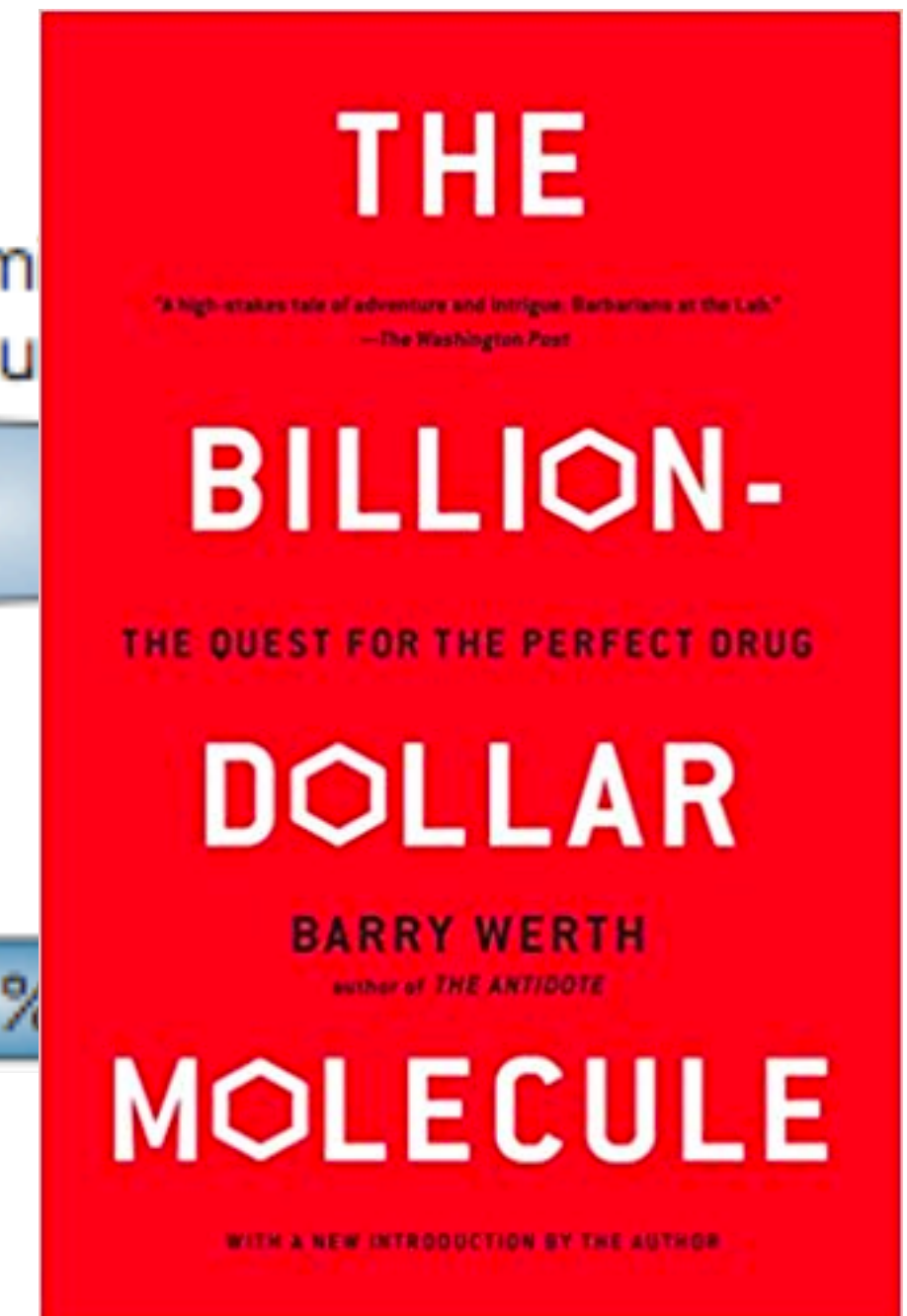
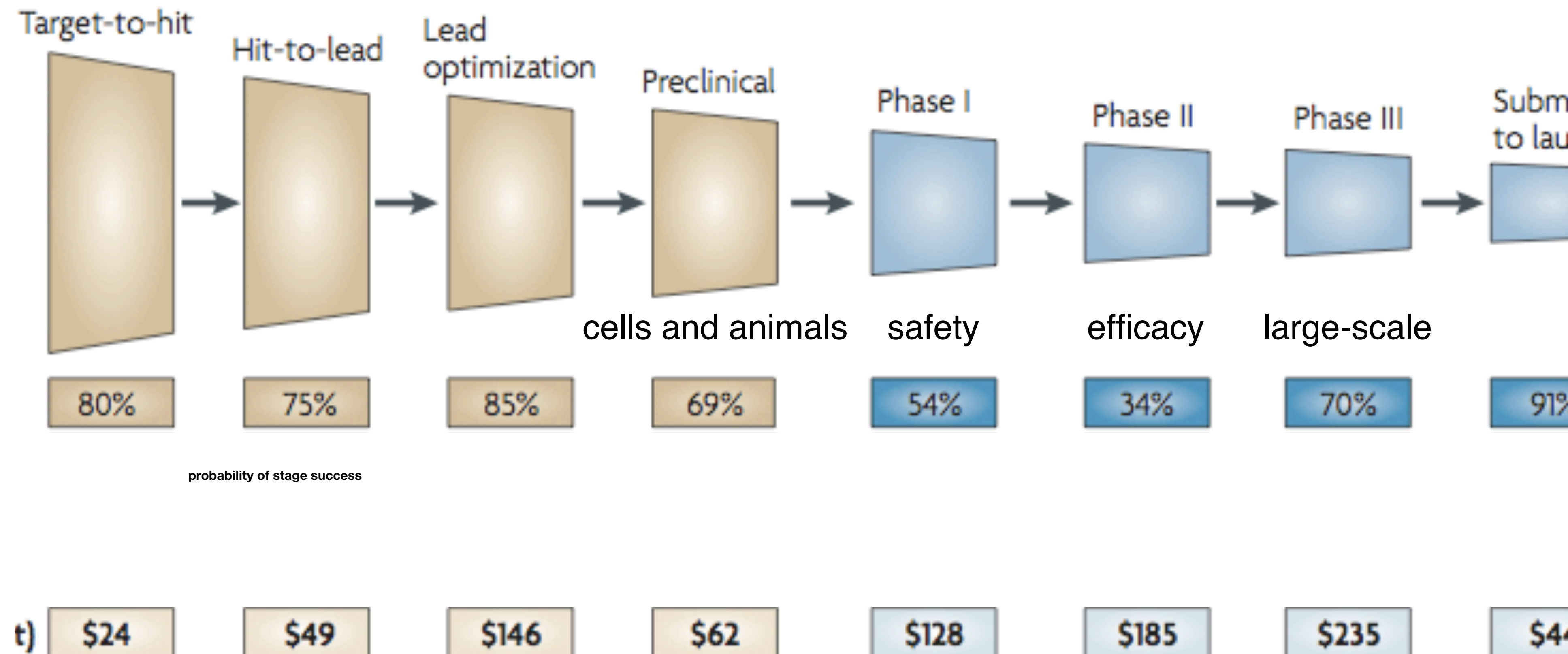
author of THE ANTIDOTE

MOLECULE

WITH A NEW INTRODUCTION BY THE AUTHOR

Much drug design is still by trial-and-error.
Can we do better with a more rational approach?

Drug discovery is expensive and often fails



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Drug targets are biological macromolecules

see Landry, Y.; Gies, J.-P. Drugs and Their Molecular Targets: An Updated Overview. *Fundam Clin Pharmacol* **2008**, 22 (1), 1–18.

<https://doi.org/10.1111/j.1472-8206.2007.00548.x>.

also see Therapeutic Target Database: <http://idrblab.net/ttd/>