

Johnson & Johnson Pharmaceuticals External Research & Early Development



Johnson & Johnson
PHARMACEUTICAL RESEARCH
& DEVELOPMENT, L.L.C.

A New Model for Research & Early Development In the Pharmaceutical Industry

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Pharmaceutical Industry Trends

- ❑ Spiraling R&D costs coupled with decreased productivity
- ❑ Demand for safety and post-marketing surveillance
- ❑ Expectation of personalized medicine
- ❑ Reimbursement driven by medical and economic outcomes

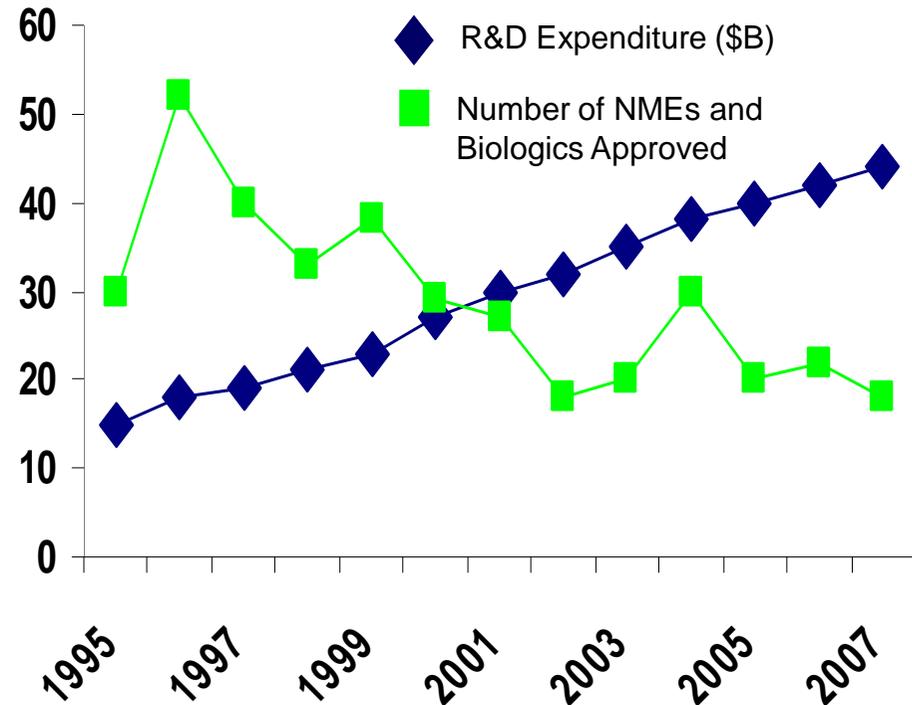
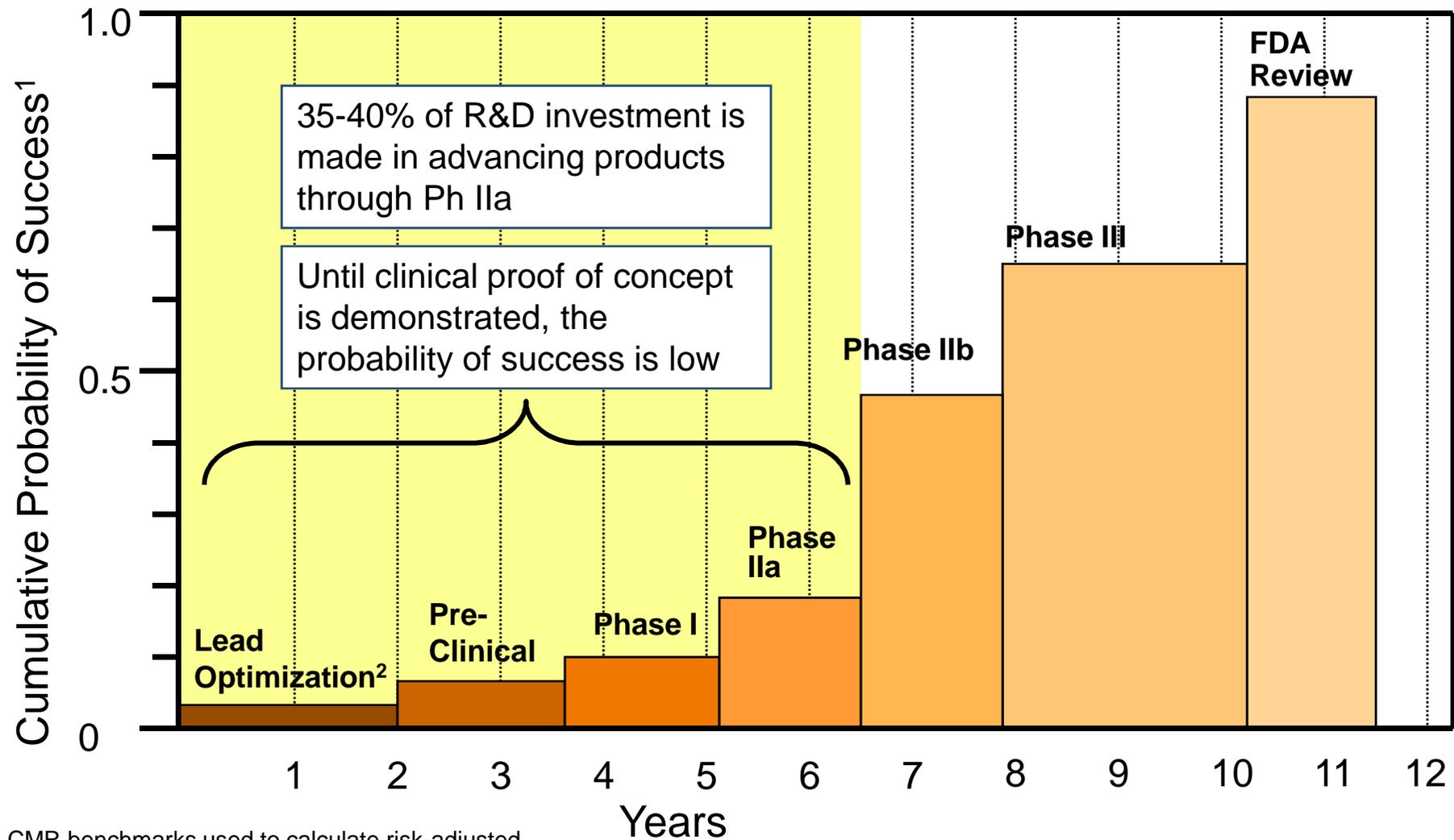


Figure adapted from Government Accountability Office
New Drug Development, Nov 2006

R&D Risk Profile

The Basis for the Valley of Death



¹ CMR benchmarks used to calculate risk-adjusted values at various stages

² Estimate

The Opportunity

Together, J&J, academia, biotech, CROs and the venture capital community can create unique partnerships that will accelerate the introduction of innovative medicines

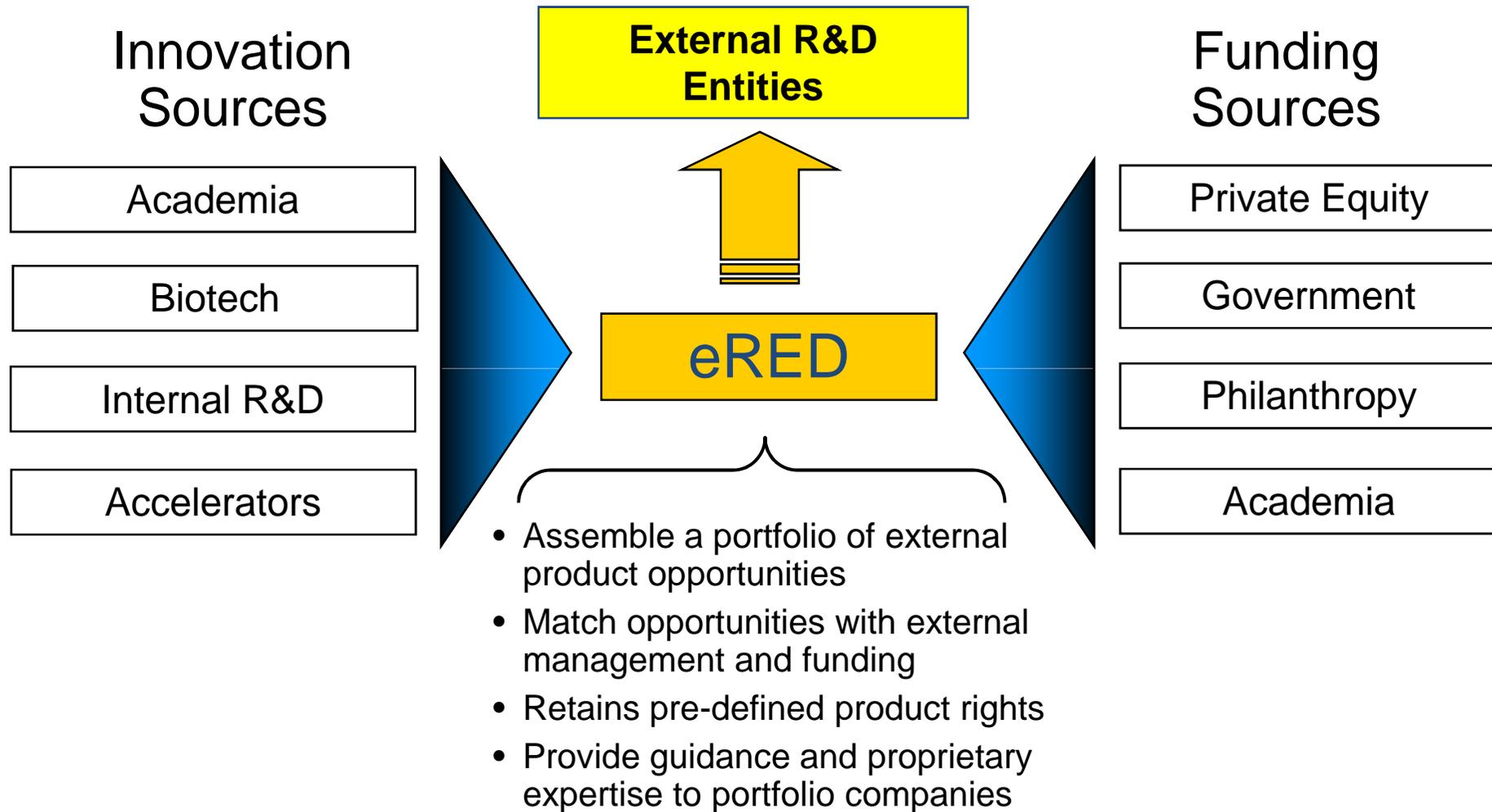
- ❑ Academia and biotech are leading sources of innovative assets, many of which are under-valued and under-resourced
- ❑ New models of venture financing are beginning to fill the gap between publicly financed basic research and traditional venture capital investment
- ❑ Elements of the discovery and early development process are becoming a commodity on a worldwide basis

eRED Mission

- ❑ In partnership with external innovators and investors, the eRED will pursue new and creative business models to build and manage a sustainable external pipeline of early-stage product opportunities
- ❑ In carrying out its Mission, the eRED will employ the following operating principles:
 - Open Innovation
 - Capital efficiency
 - Lean infrastructure
 - Flexibility
 - Leveraged investments
 - Financial risk and reward sharing
 - Options to acquire products

A New Model for Research & Early Development

Bridging the Valley of Death



Focus of eRED Sourcing Activities

- ❑ Lead compounds, tractable hits or molecular targets, in that order of priority, with the following attributes:
 - Address a significant unmet clinical need
 - Potential to deliver highly differentiated product
 - Have IP or clear path to patentable space
 - Supported by strong science
- ❑ In scope
 - All therapeutic areas
 - Large and small molecules
- ❑ Out of scope
 - Vaccines, stem cell , siRNA and gene-therapy
 - Nutraceuticals, Device & Diagnostic
 - Drug repositioning

Benefits to Academia of eRED Model

- ❑ Progress and accelerate opportunities that could otherwise languish
- ❑ Access to external funding vehicles to advance product development
- ❑ Provides opportunity for faculty to be involved directly in drug discovery and development
- ❑ Attractive incentives to innovators and universities
- ❑ Vehicle to secure product development vs traditional licensing outcomes
- ❑ Commitment from a dedicated J&J team

Thank You for Your Attention

- ❑ eRED Business Development

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- ❑ eRED Scientific Portfolio

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