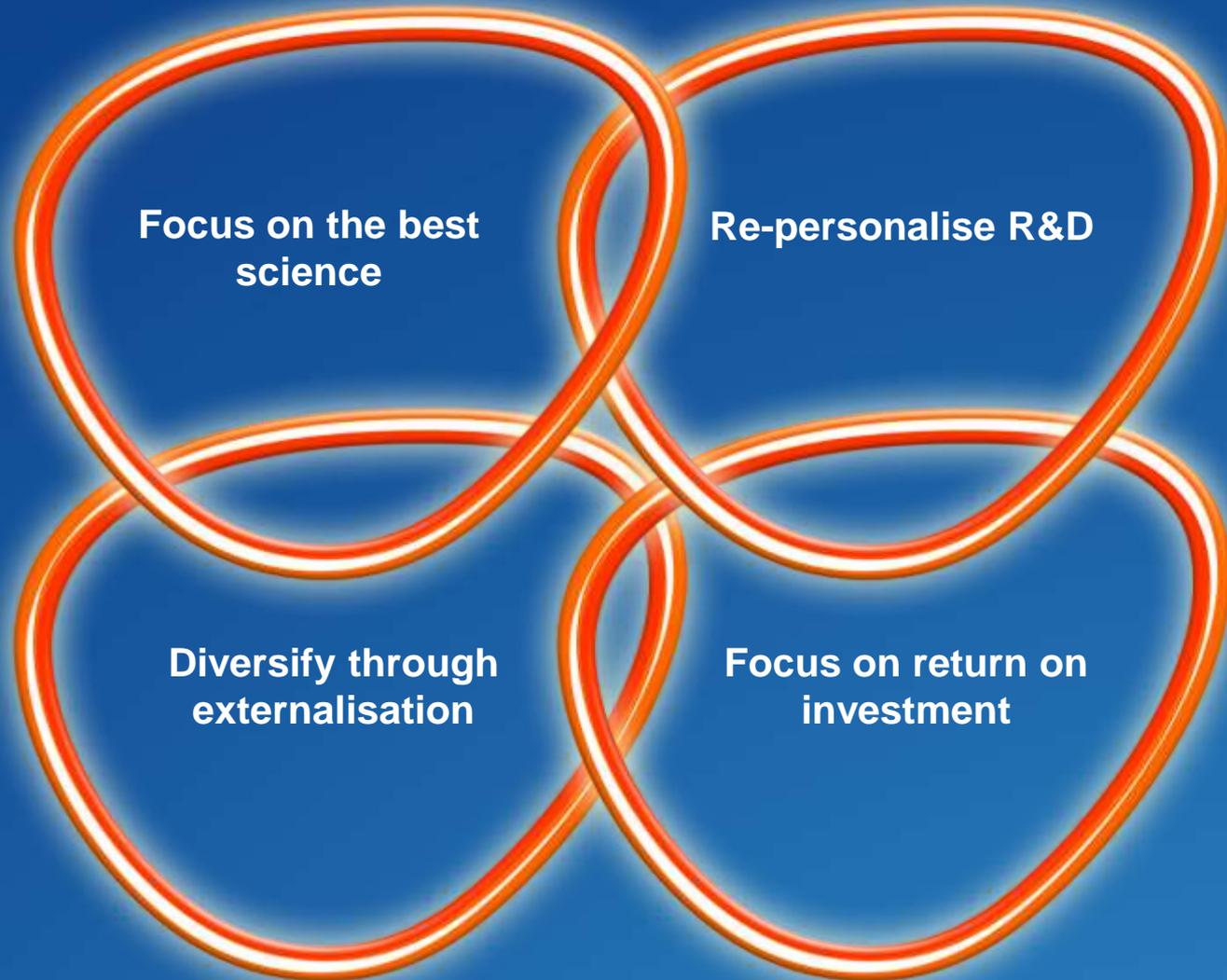




Bernstein Pharmaceuticals Long View Conference
5th May 2011

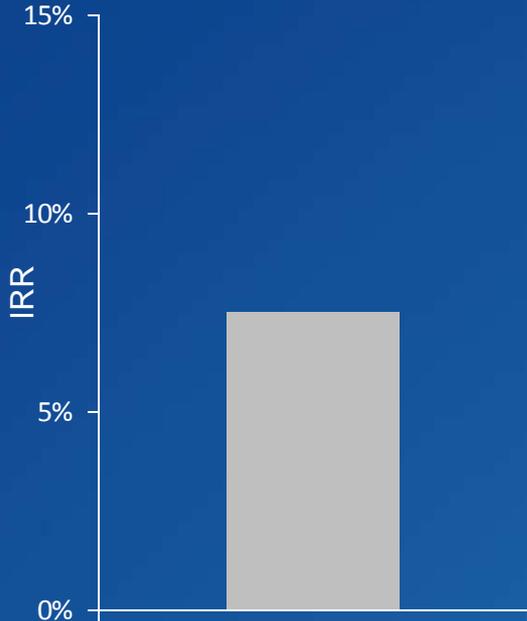
Ad Rawcliffe, SVP Finance North American Pharmaceuticals
(Previously SVP Worldwide Business Development
& R&D Finance)

GSK's R&D strategy is based on four linked elements

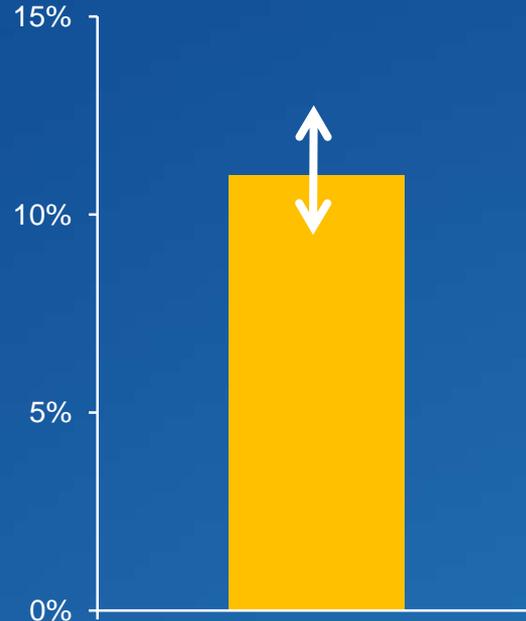


Committed to improving returns in R&D

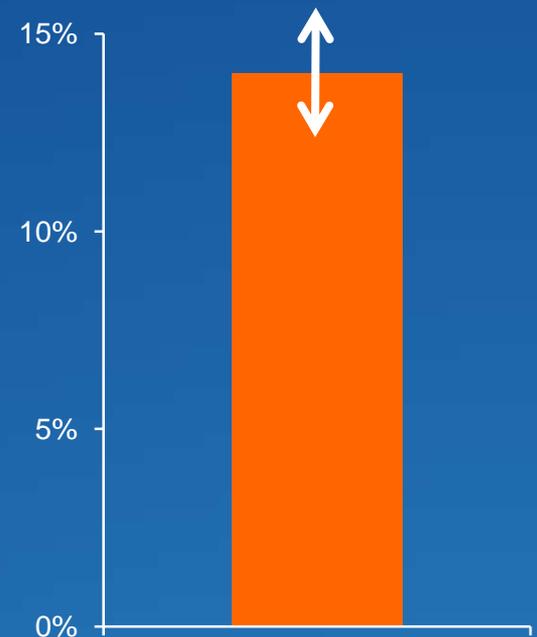
R&D returns over the last decade have been disappointing¹



Our estimates for GSK's late-stage portfolio²



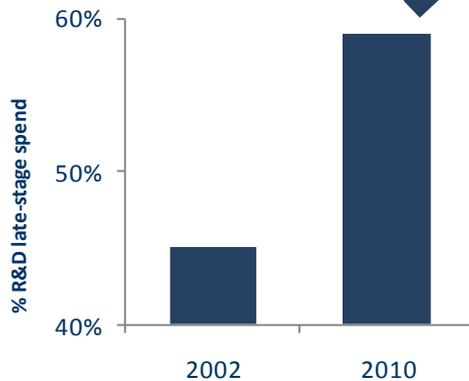
Our goal is to improve this return by 25% via our R&D strategy



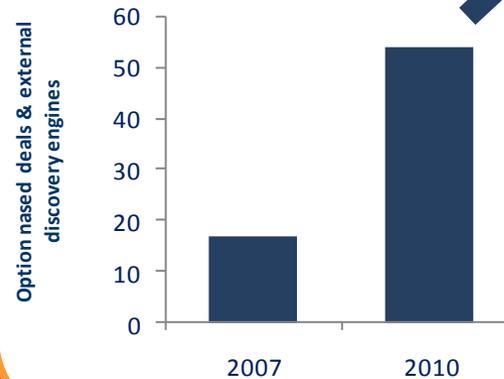
1. McKinsey, *Nature Reviews, Drug Discovery* (Aug 09) for small molecules. 13% for biopharms.
2. We have estimated the projected rate of return based on the investment made to create our late stage pipeline and our expectations on future long term sales performance. Our current late-stage portfolio includes pharma assets (eg small molecules and biopharms) and vaccines launched from 2007 onwards plus current phase IIb & III pipeline.

Five levers to improve returns in pharma R&D

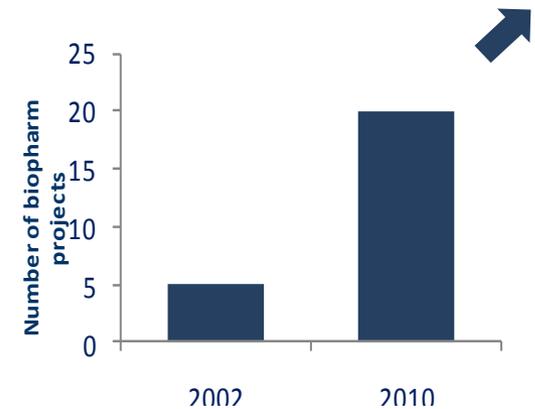
Shift R&D spend from early to late¹



Increase Discovery² externalisation



Grow biopharm pipeline



More rigorous focus on potential differentiation prior to commit to full development

Drive efficiencies throughout R&D

Do more with the same or less cost

1. Early = pre-Commit to Medicines Development (C2MD); Late = post-C2MD

2. Discovery = Start of Chemistry to C2MD

Before you start you need to believe.....

That there is an opportunity to discover valuable new medicines

That we understand what went wrong with pharmaceutical R&D in the last 2 decades

That we know what levers to pull to fix it

Before you start you need to believe.....

That there is an opportunity to discover valuable new medicines

That we understand what went wrong with pharmaceutical R&D in the last 2 decades

That we know what levers to pull to fix it



Unmet need

Scientific growth

Value

Before you start you need to believe.....

That there is an opportunity to discover valuable new medicines



Unmet need

Scientific growth

Value

That we understand what went wrong with pharmaceutical R&D in the last 2 decades



Industrialization

Infrastructure

That we know what levers to pull to fix it

Before you start you need to believe.....

That there is an opportunity to discover valuable new medicines

That we understand what went wrong with pharmaceutical R&D in the last 2 decades

That we know what levers to pull to fix it



Unmet need

Industrialization

Selection

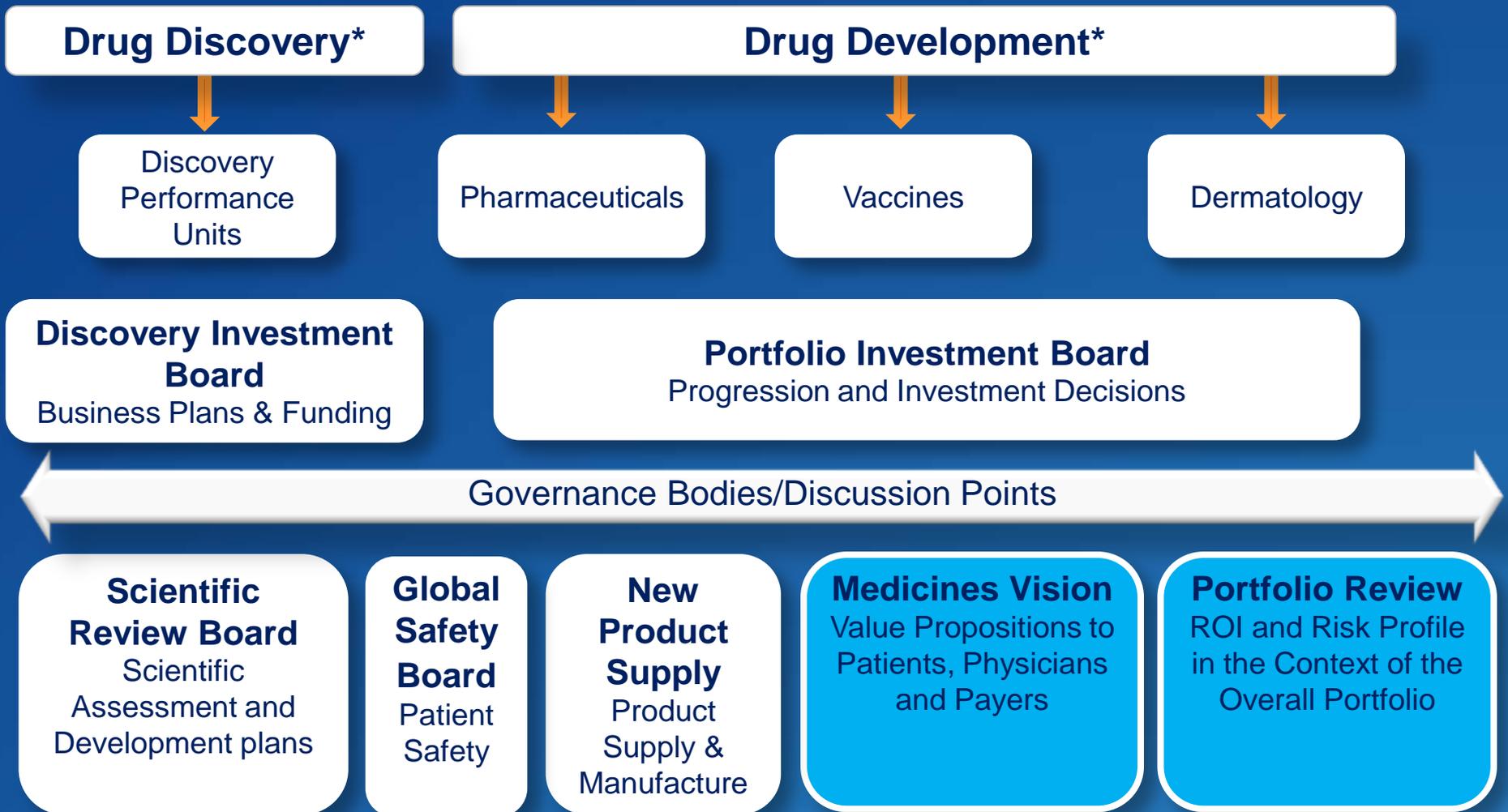
Scientific growth

Infrastructure

Execution

Value

Rigorous capital allocation drives selection



* R&D spend: ~40% Discovery, ~60% Development

Execution to drive returns

Obtained the highest number of FDA approvals (10) over the last 4 years whilst growing a sustainable late stage pipeline (c.30 assets)

With a significantly reduced workforce

28% decrease since 2006

.. and major reduction in infrastructure

29% decrease in m² since 2006

....reduction in sites recruiting zero patients

29% to 16% (2006-2010)

...increase in number of patients per site

Doubled from 5-10 (2006-2010)

... reduction in clinical trial supply overages

Resulting in ~\$120m cumulative savings (2006-2009)

... reduction in clinical study country footprint

From 78 to 48 countries (2006-2009)

.. Streamlining of CRO strategy

100+ CROs to 2 (2006-2010)

Late stage pipeline potential will play out over next 24 months

**10 new NCE / vaccine
Ph III starts 2010 / early 2011**

'212 (MEK)

'273 (Telethon)

'436 (Braf)

'786 (CCX282)

'968 (DMD)

Integrase /
Integrase + Kivexa

IPX066

LABA / LAMA

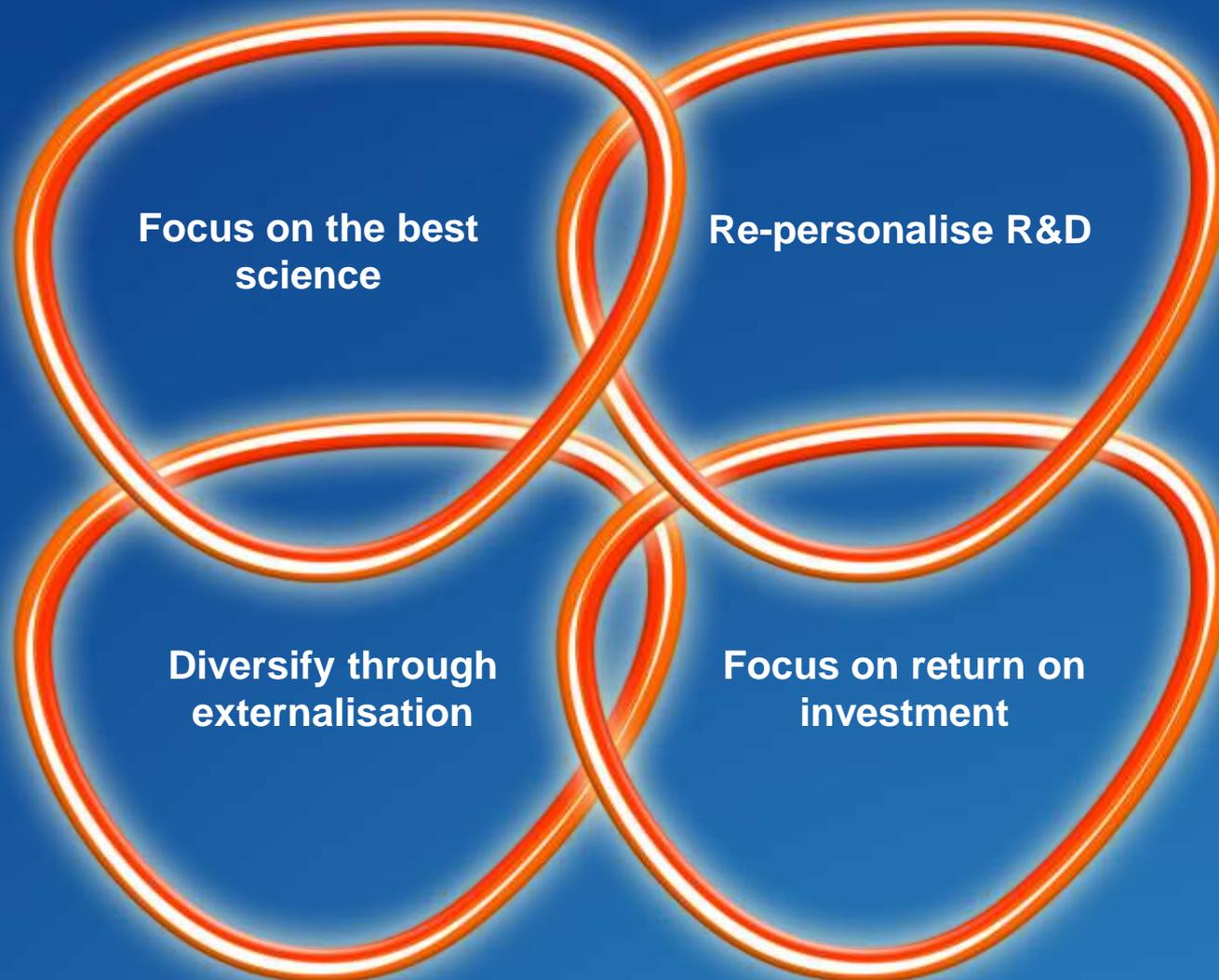
migalastat HCl

Zoster

**~ 30 in
Phase III /
registration**

**~ 15 assets with Phase III
data by end 2012**

GSK's R&D strategy is based on four linked elements





GlaxoSmithKline

Reference Slide: Methodology to estimate the IRR of GSK R&D's late-stage pipeline

Estimated Sales

- Late-stage pipeline includes pharma NCEs and vaccines launched from 2007 onwards plus current phase IIb & III pipeline. (Sales taken from 2007 in order to match the R&D costs from 2001 onwards)
- Actual sales 2007-09 for products launched since '07.
- Estimated future sales for all products through 2030.
- Future sales estimates include risk-adjustment which is inline with current industry attrition rates.

Key Financial Assumptions

- Forecast operating profit margins after deduction of CoGS, selling and marketing and direct administration costs. Estimates are similar to current margin ratios.
- Includes estimates of capital investments and working capital requirements.
- Includes the Group tax rate of 28%.

R&D Costs

- R&D costs associated with the development of our current late-stage pipeline projects are included (including the costs of failed assets as well as infrastructure costs).
- For pharma, the following approach was used:
 - Total R&D costs split proportionately into early-stage (pre-CS), mid-stage (CS-C2MD) and late-stage (C2MD to launch) .
 - In order to allocate all costs for this set of projects (eg late-stage pipeline) as accurately as possible, costs were included as follows:
 - 2001-03: All early-stage and 50% mid-stage costs
 - 2004-07: All mid-stage and all late-stage costs excluding PLE and market support.
 - 2008 and beyond: All late-stage cost estimates for the assets which are included in the sales projections, and estimates for increasing regulatory support
 - Actual upfront and milestone payments for in-licensed assets, as well as estimates for future milestone payments, were also included.
- For vaccines, a similar approach was used.

CS = Candidate Selection; C2MD = Commit to Medicines Development

The methodology above was applied to estimate the annual net cash flows used to derive the estimated IRR %

