Unlocking R&D productivity

Measuring the return from pharmaceutical innovation 2018

2018 results for large cap biopharma companies

- **R&D returns** have fallen to the lowest level in nine years.
  - 2010: 10.1%
  - 2012: 7.3%
  - 2014: 5.5%
  - 2016: 4.2%
  - 2018: 1.9%

The cost to bring an asset to market has increased to record levels in 2018.

- **Late-stage pipelines** are increasingly comprised of oncology assets.
  - 2010: 18%
  - 2018: 39%

Forecast peak sales per asset have more than halved since 2010.

- 2010: $816m
- 2018: $407m

2018 results for smaller, more specialised biopharma companies

- More specialised biopharma companies are outperforming large cap biopharma, despite the higher development cost, due to higher projected pipeline values.
  - Returns: 9.3%
  - Forecast sales: $1,165m
  - Development costs: $2,805m

Unlocking R&D productivity by embracing the future of work

- Develop digital and analytical skills at all levels
- Automate repetitive tasks to take on higher value-add work
- Invest in innovation hubs to gain access to talent and ideas
- Establish open and collaborative partnership models with innovators, entrepreneurs, and technology companies
- Consider non-traditional sources of talent such as crowdsourcing or gig workers
- Build machine learning algorithms to inform decision-making