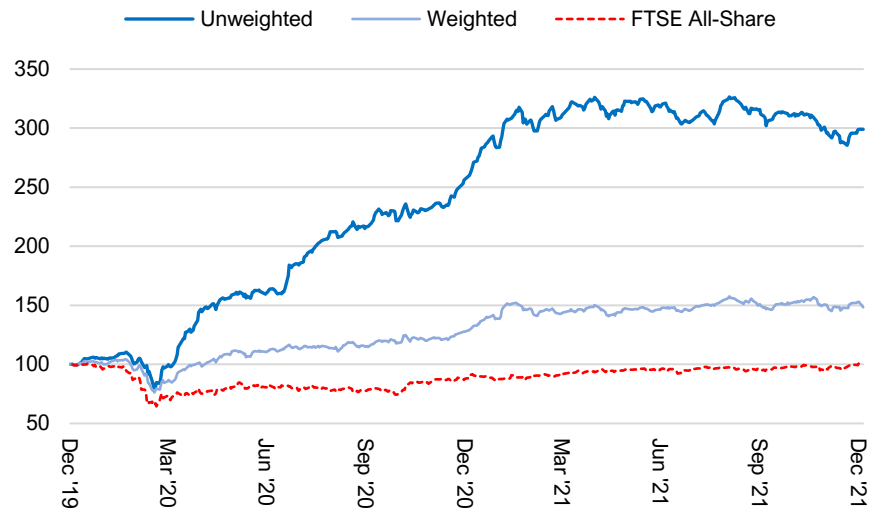




Radnor Broad UK Listed Biotech Index - 2 Year Chart



Source: FactSet, Radnor

- The UK listed biotech sector ended 2021 ahead of the broader UK market benchmark, marking a second consecutive year of outperformance. Inevitably, the extraordinary outperformance delivered in 2020 was unlikely to be surpassed, or even matched, but 2021 marked a further year of progress.
- Over the course of 2021, the broad biotech index returned +16% vs +14% for the FTSE All Share. **Cell & Gene Therapy, Research Tools, Medical Devices and Small Molecule** all returned 20% plus. Investment Vehicles (-5%) and Diagnostics (-9%) both found themselves in negative territory.
- Alongside a remarkable price outperformance, 2020 marked a reversal of the trend of diminishing new equity support with £1.1bn of fresh equity raised. However, this was dominated by secondary fundraising by existing listed companies. 2021 also **passed the £1bn barrier** for fresh equity but with a far healthier split between IPO (£428m) and secondary (£613m). The successful **Oxford Nanopore** IPO was a test of broad investor appetite for the sector, and the breadth of UK institutional support is a positive marker for the future.
- 2020 saw a marked increase in the number of UK and overseas institutional investors returning to the sector. 2021 has also seen a further increase in the number of new investors active in the sector, although the pace of 2020 was always going to be hard to match.
- **The last two points around capital raising and investor activity levels are especially critical for a sector where capital and liquidity have been prominent historic points of concern. 2021 demonstrates that 2020 was not a flash in the pan and instead provides a solid platform from which the sector can grow.**

The BioIndustry Association is a research client of Radnor Capital Partners Ltd.

MiFID II – this research is deemed to be a minor, non-monetary benefit.

17th January 2022

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1 – Price Performance:

Figure 1: Broad Biotech Index – 1 Year

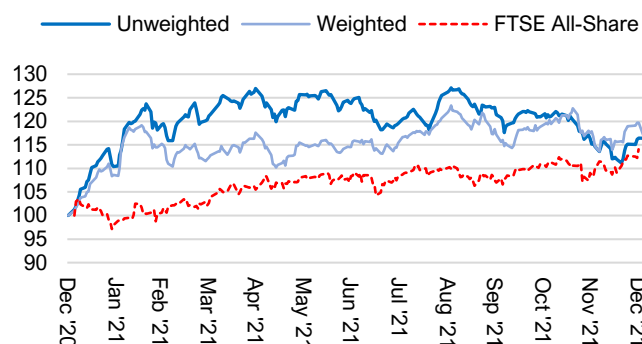


Figure 2: Broad Biotech Index – 5 Year

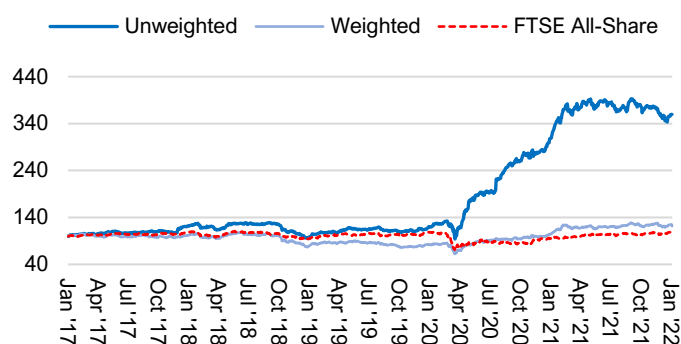


Figure 3: All Sub Indices - Unweighted

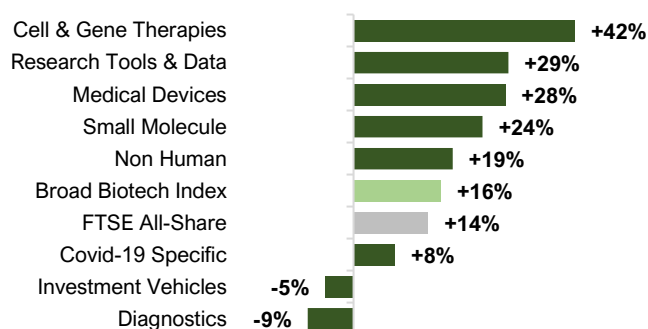
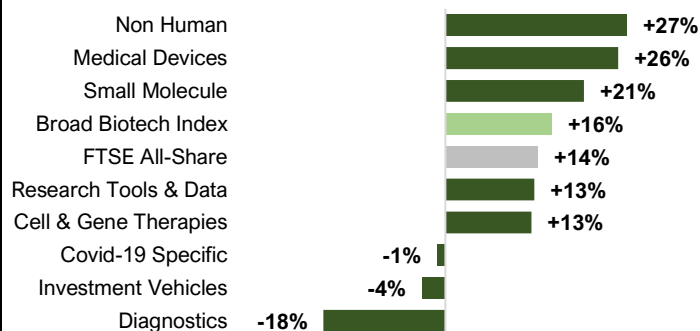


Figure 4: All Sub Indices – Market Cap weighted



Source: FactSet, Radnor

Above we show the 1 Year and 5 Year performance charts for the Broad UK Biotech Index. The index classifications and constituents have been curated by Radnor, in partnership with the BIA. These indices are calculated via the FactSet custom index methodology on both an Unweighted basis and a Market Cap Weighted basis.

- The market cap of the Broad Biotech index is **£39.9bn** and is made up of **86** constituents. On a net basis, the numbers of constituents declined by 5 due to a combination of M&A and Nasdaq re-listings outweighing 5 successful IPOs
- The sector continues to be concentrated with the ten largest companies enjoying a combined market cap of **£26.6bn**, representing **68%** of the sector by value.
- Although the second half of 2021 witnessed a more mixed performance compared to H1, the listed biotech sector still **ended 2021 outperforming** the broader UK market on both an Unweighted and Weighted basis.
- We would also note that **even prior** to the onset of the Covid-19 pandemic, which has clearly been the catalytic event dominating the sector during 2020, the Broad Biotech index had been outperforming the broader market throughout Q1 2020.
- In fact, over the last five years, on an **unweighted** basis, the Broad Biotech Index had been performing **ahead** of the FTSE All Share.

In the charts that follow, we break the Broad Biotech index down into its main sub-components.

Small Molecule & Biologic Therapeutics

Figure 5: Small Molecule – 1 Year

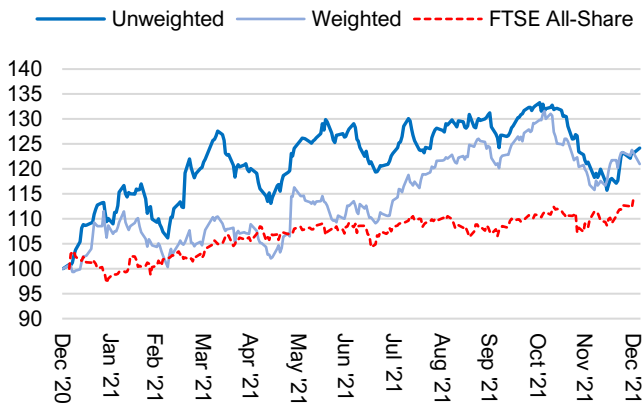
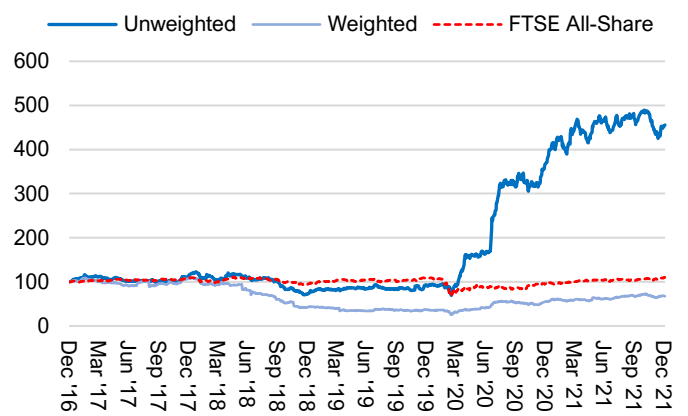


Figure 6: Small Molecule - 5 Year



Source: FactSet, Radnor

Cell & Gene Therapies

Figure 7: Cell & Gene Therapies – 1 Year

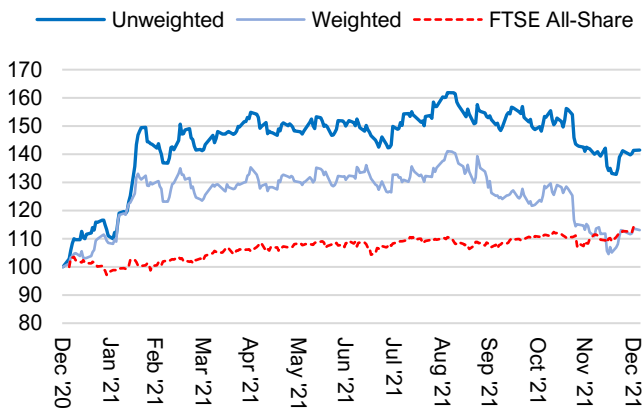
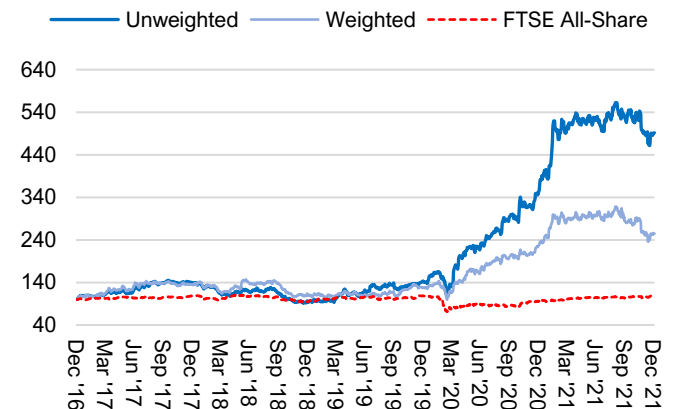


Figure 8: Cell & Gene Therapies – 5 Year



Source: FactSet, Radnor

Research Tools & Data

Figure 9: Research Tools – 1 Year

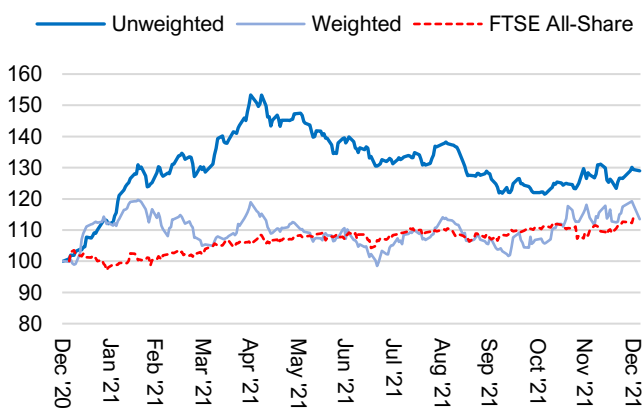
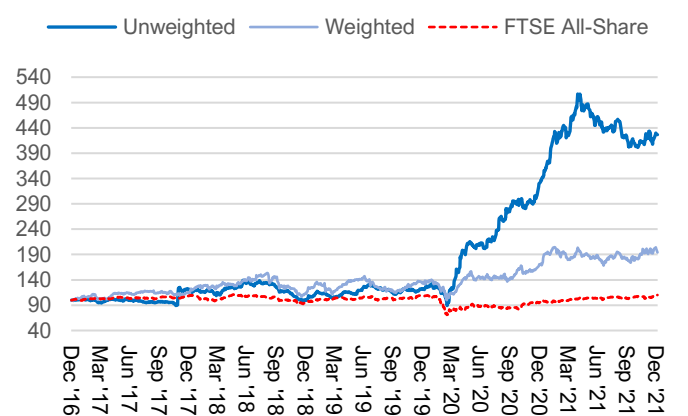


Figure 10: Research Tools – 5 Year



Source: FactSet, Radnor

Diagnostics

Figure 11: Diagnostics- 1 Year

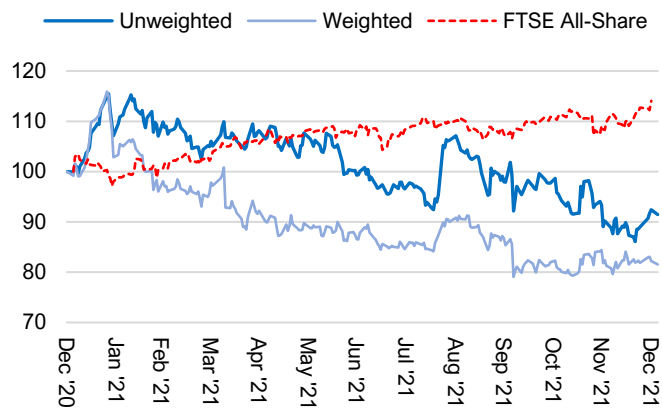
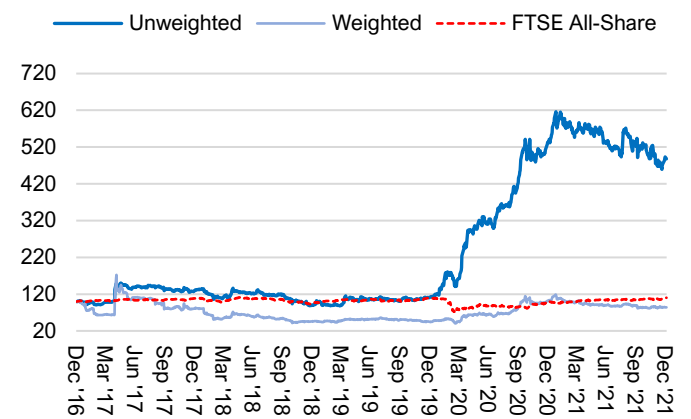


Figure 12: Diagnostics- 5 Year



Source: FactSet, Radnor

Medical Devices

Figure 13: Medical Devices- 1 Year

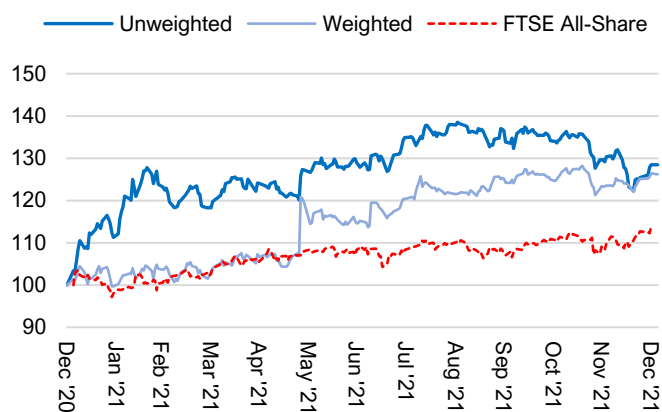
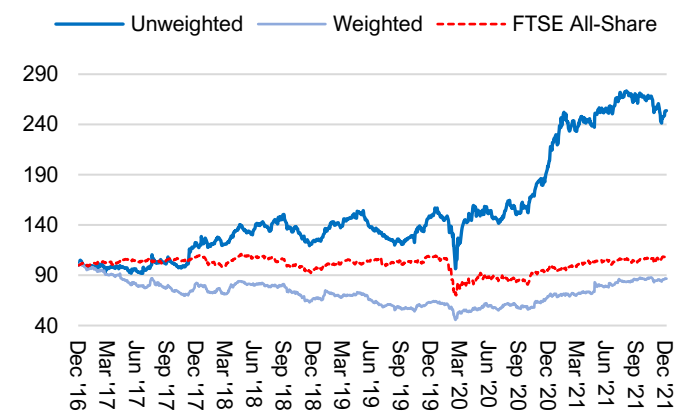


Figure 14: Medical Devices- 5 Year



Source: FactSet, Radnor

Commercialisation & Investment Vehicles

Figure 15: Investment Vehicles- 1 Year

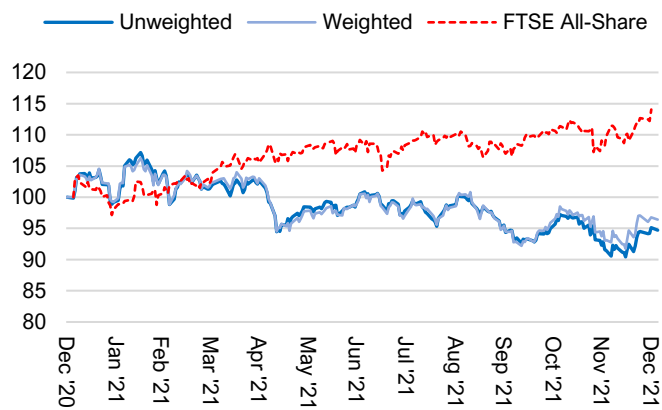
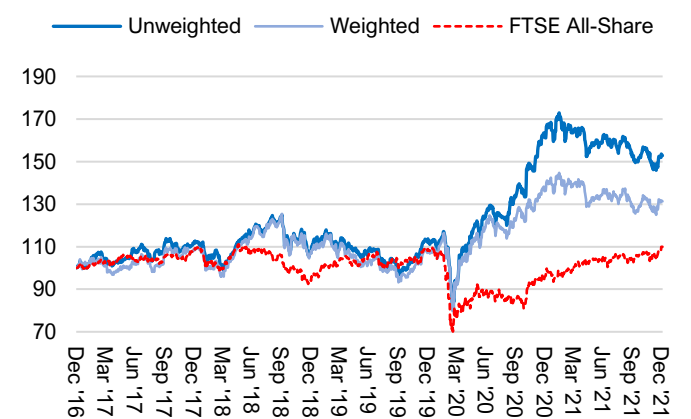


Figure 16: Investment Vehicles- 5 Year



Source: FactSet, Radnor

COVID-19 Specific “Composite”

Figure 17: COVID-19 Specific - 1 Year

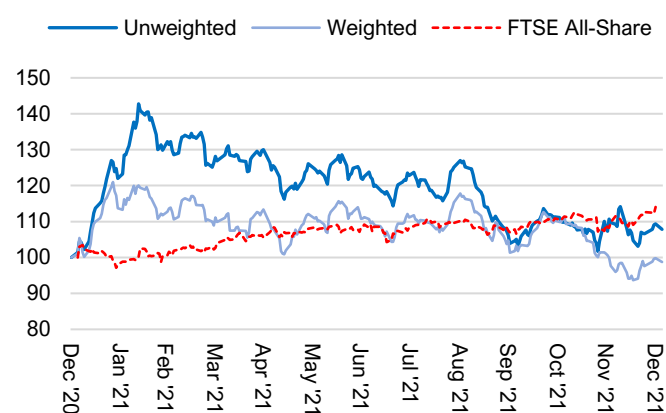
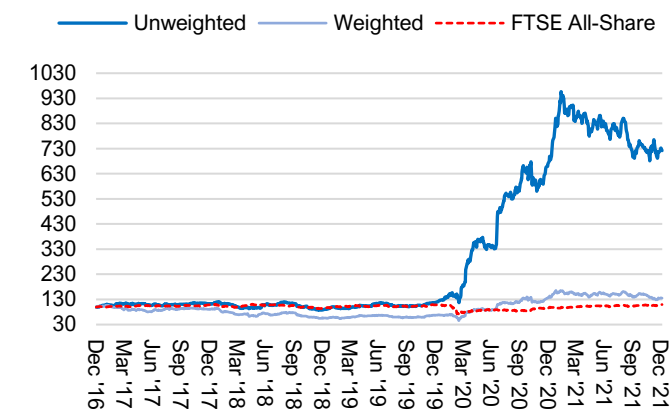


Figure 18: COVID-19 Specific - 5 Year



Source: FactSet, Radnor

Non Human Life Sciences

Figure 19: Non Human Life Sciences - 1 Year

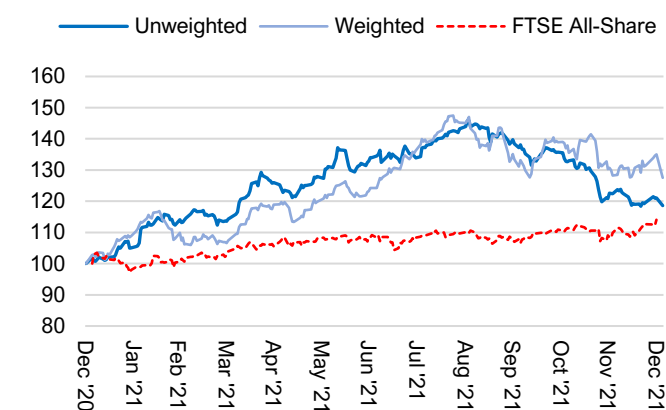
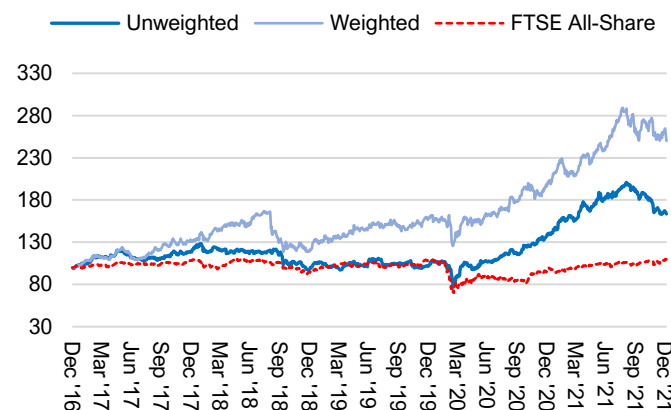


Figure 20: Non Human Life Sciences - 5 Year



Source: FactSet, Radnor

In Figure 15 and 16 above, we show the performance of the COVID-19 specific peer group. This is a “composite” sub index, whose constituents are drawn from each of the former sub-indices. Each of these companies have announced trials or product development specifically aimed at testing or treating Covid-19, or where their existing IP has direct relevance in dealing with the pandemic.

It is notable how this particular “composite” peer group has seen its outperformance tailing off as the vaccine roll-out has gathered pace around the world. It is perhaps not surprising to see a peer group that has seen its aggregate share price increase 8x in the space of less than a year experience some natural profit taking. However, share prices in this peer group remain substantially elevated from pre-pandemic levels, which suggests that investors continue to expect Covid-19 to remain a structural theme for some time to come.

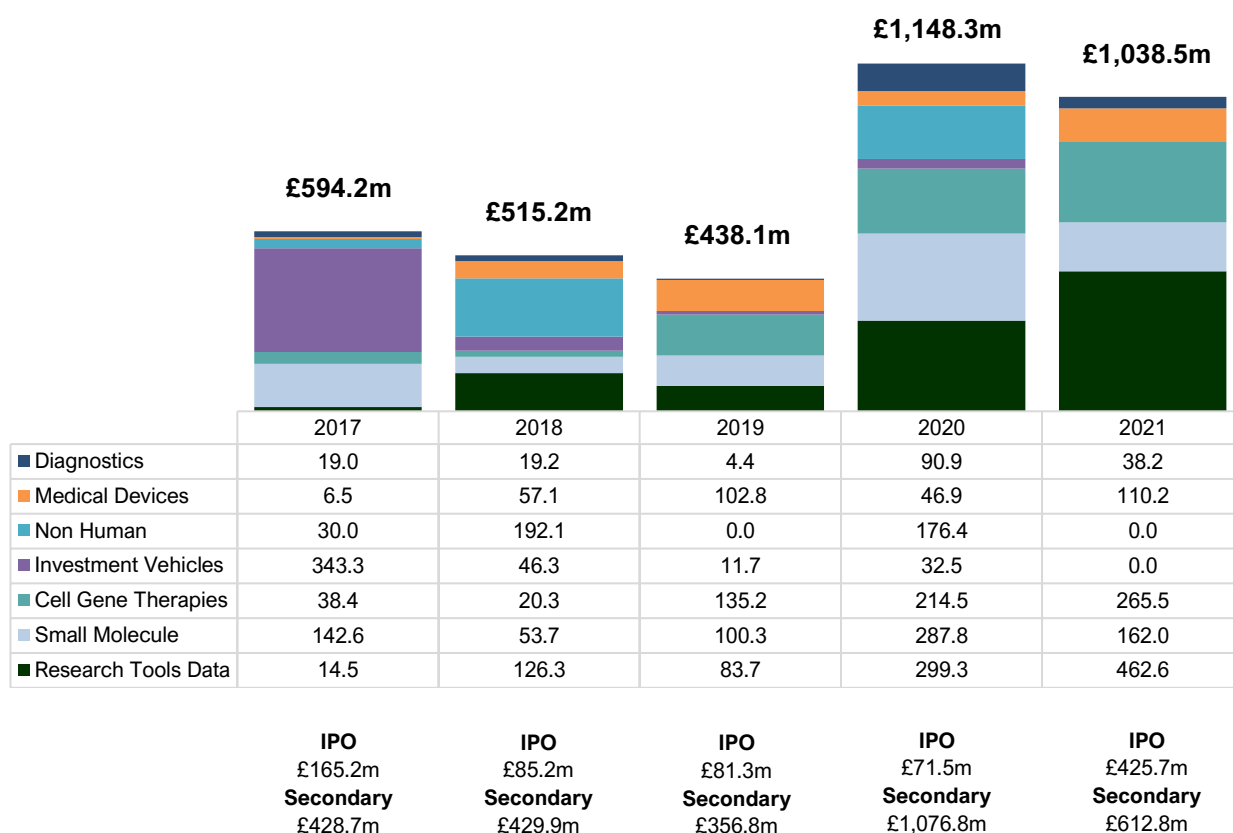
2 – Capital Raising: 2021 building on a standout 2020

It was always going to be challenging for the sector to exceed what was a remarkable (by sector standards) 2020 from a capital raising perspective. However, 2021 came close to 2020 in terms of total new equity raised:

- Year to date, 2021 **£1,039m** of new equity raised across **5 IPOs** and **25** secondaries. This represents **90%** of the total equity raised in 2020 and **137%** ahead of the **£438m** raised in 2019. In fact, 2021 saw more fresh equity raised than both 2019 and 2018 combined.
- 2020** was an unusually strong comparative with a total of **£1,148m** of fresh equity raised by **51** individual companies, more than double the amount raised in 2018 and 2019 combined.
- 2020** was also unusual in the sense that **94%** of the equity raised (**£1,077m**) was to support existing listed companies. 2021 has shown a much more even balance between IPO and secondary fundraising activity.

In Figure 21 below, we show the **amount** (£m) of fresh equity raised across the last four years by sub-index.

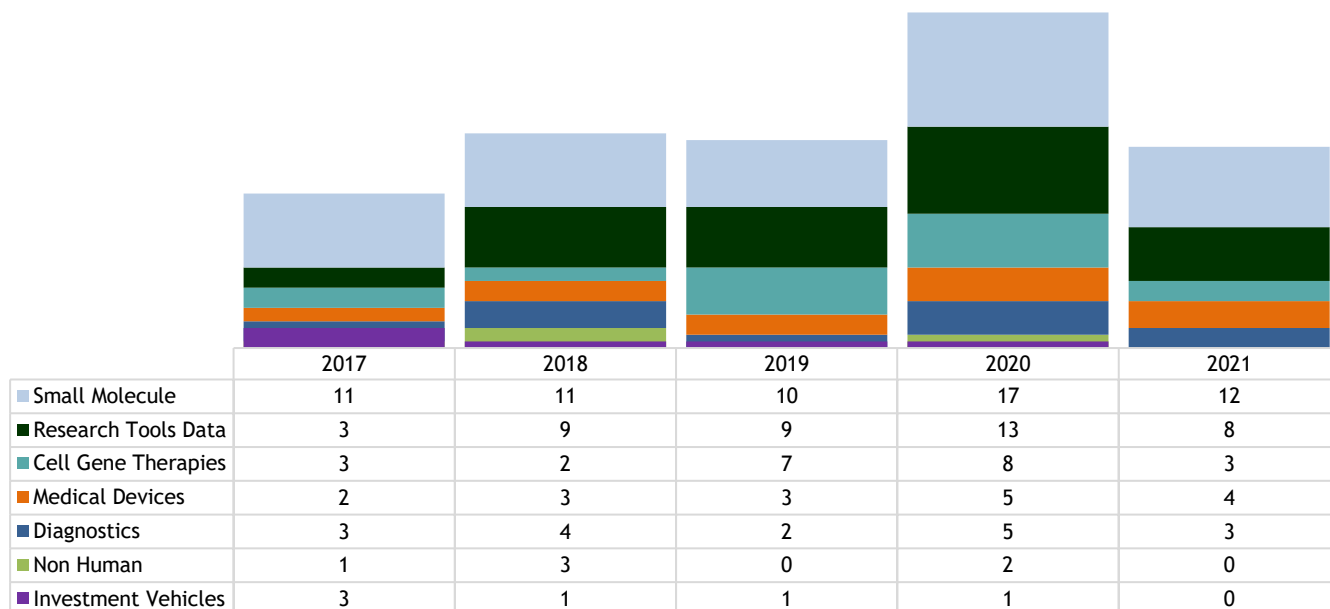
Figure 21: Fundraising Activity, 2017 – 2021 year to date by value of transactions, £m



Source: London Stock Exchange, RNS, Radnor

In Figure 22 below, we show the **number** of companies that have raised fresh equity across the last four years by sub-index.

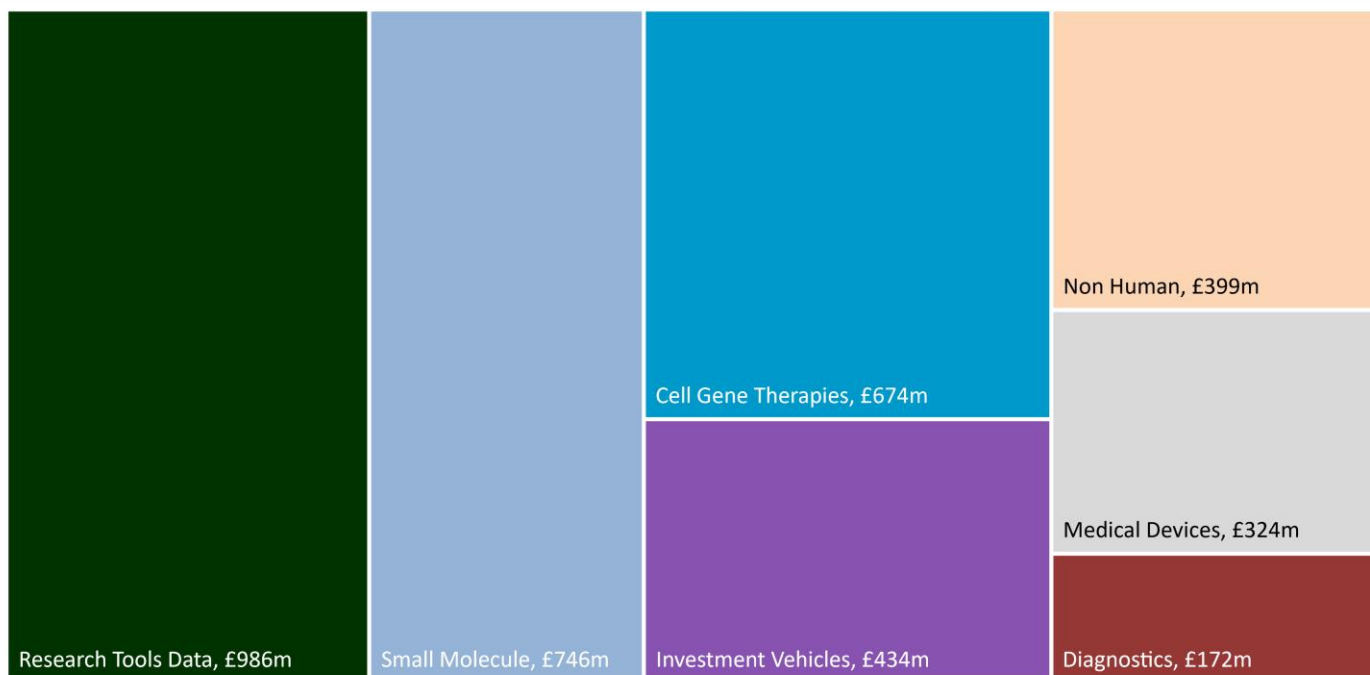
Figure 22: Primary & Secondary Fundraising Activity, 2017 – 2020 by number of companies



Source: London Stock Exchange, RNS, Radnor

Looking at the last four years in the round; Figure 23 below shows the split of total IPO and Secondary fundraising totals across the main sub-indices.

Figure 23: Primary & Secondary Fundraising Activity, 2017 – 2021 year to date combined by value of transactions, £m



Source: London Stock Exchange, RNS, Radnor

3 – Investor Trading Flows and Participation:

Unsurprisingly, with sector price performance varying significantly between H1 and H2 of 2021, we can see evidence for this in the volume and direction of investor trading flows.

- In H1 2021, we identified a net inflow of **£606m** of net new buying across all investor types
 - **Small Molecule** (net inflow of £366m) and **Research Tools** (net inflow of £267m) saw the highest levels of net buying activity.
- In H2 2021, this trend reversed with a net outflow of **£296m** of selling across all investor types
 - **Small Molecule** (net outflow of £198m) saw the biggest net selling, followed by Cell & Gene Therapy (net outflow of £86m) and Diagnostics (net outflow of £69m).
 - **Research Tools** (net inflow of £107m) was the only sub sector with positive H2 net investor balance, driven primarily by the Oxford Nanopore IPO
- Across the Broad Index and over the full year we can identify **£4,248m** of **Buying** activity, offset by **£3,938m** of **Selling** activity; resulting in a full year total net inflow of **£309m** across the sector;
 - **Research Tools** (full year net inflow of £374m) and **Small Molecule** (full year net inflow of £168m) led the way in terms of net positive investor buying activity.
 - Only **Commercialisation & Investment Vehicles** (full year net outflow of £99m) and **Medical Devices** (full year net outflow of £14m) saw consistent net outflows in both H1 and H2.
- Looking at the data through the lens of investor type:
 - **North American** (full year net inflow of £703m) and **European** investors (net inflow of £151m) were the largest net buyers across the full year.
 - **UK Larger Institutions** continued to be material net sellers in value terms with an outflow of £379m, although the pace of net selling decreased in H2.
 - **UK Smaller Institutions** were overall net sellers in 2021 (-£42m), despite being net buyers of the sector (+£36m) in H1.
 - **UK Private Wealth** were net sellers across the year (-£97m) continuing their trend established late in 2020. During the first three quarters of 2020, UK Private Wealth had been material net buyers of the sector.
 - **UK Retail Execution Only** platforms have been a prominent force in the sector and were overall net buyers (+£25m) in 2021, although they were small net sellers in H2.

Broad Biotech Index – All Investor Buying / Selling, - H1 vs H2 2021

Figure 24: All Investors Buying / Selling – H1 vs H2 – by Sub Index

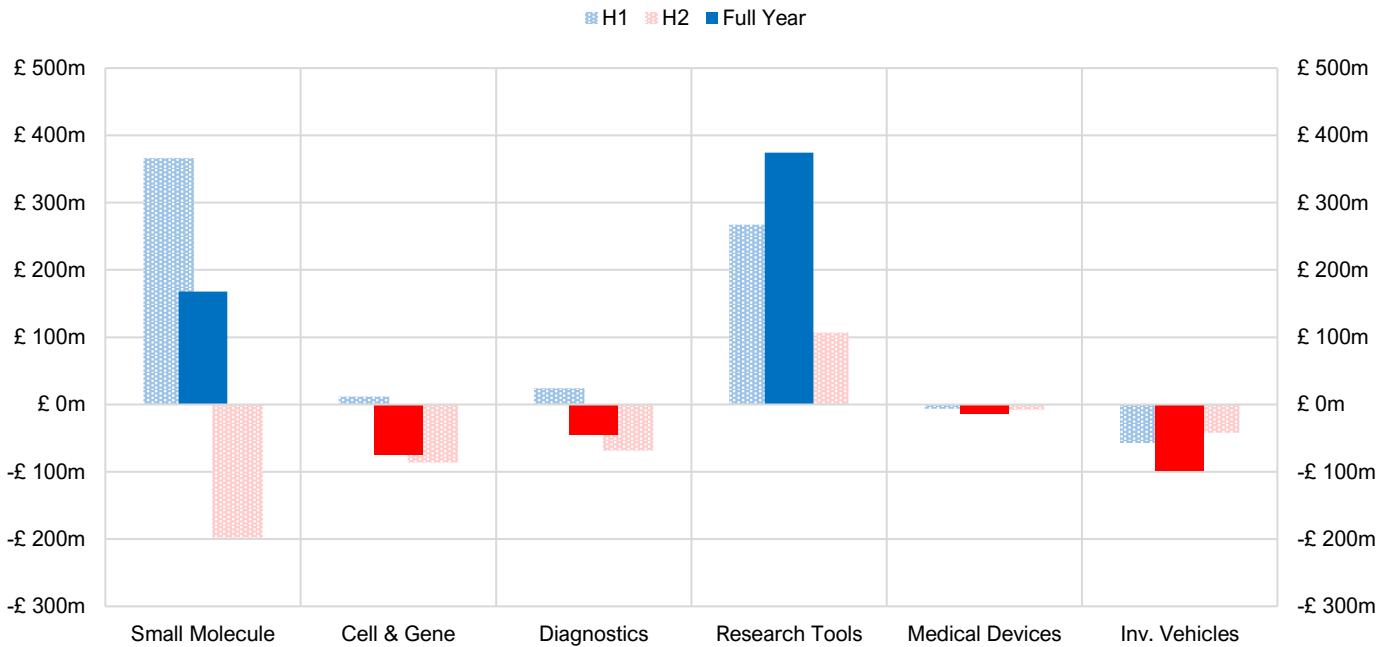
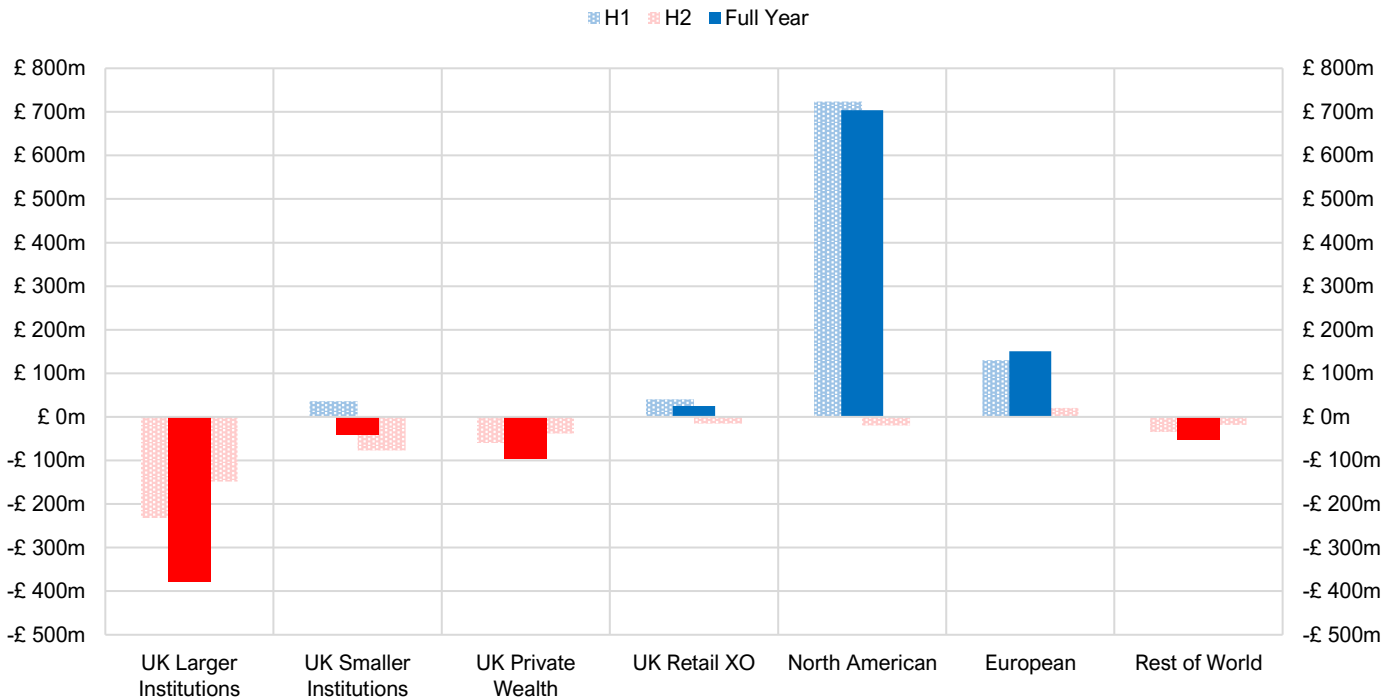


Figure 25: All Investors Buying / Selling – H1 vs H2 – by Investor Type



Source: FactSet, Radnor

Broad Biotech Index – All Investor Buying / Selling, June through December 2021

Figure 26: All Investors Buying / Selling – H2 2021 – by Sub Index

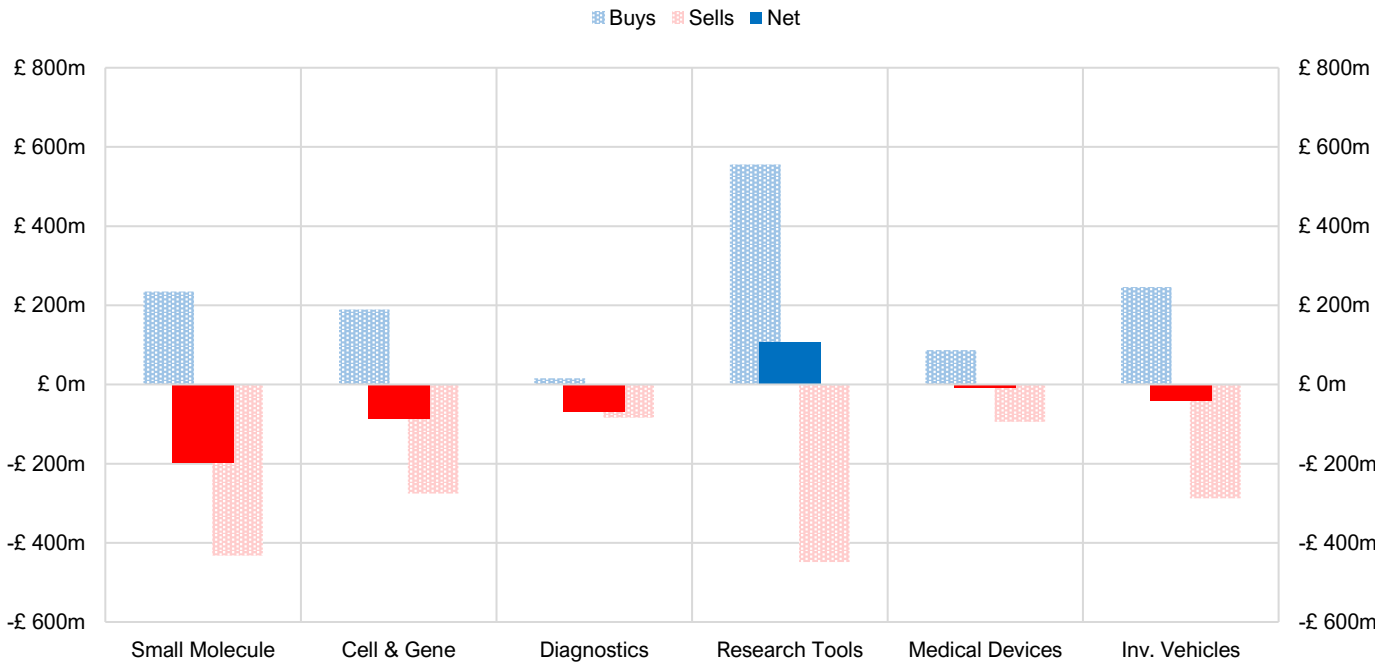
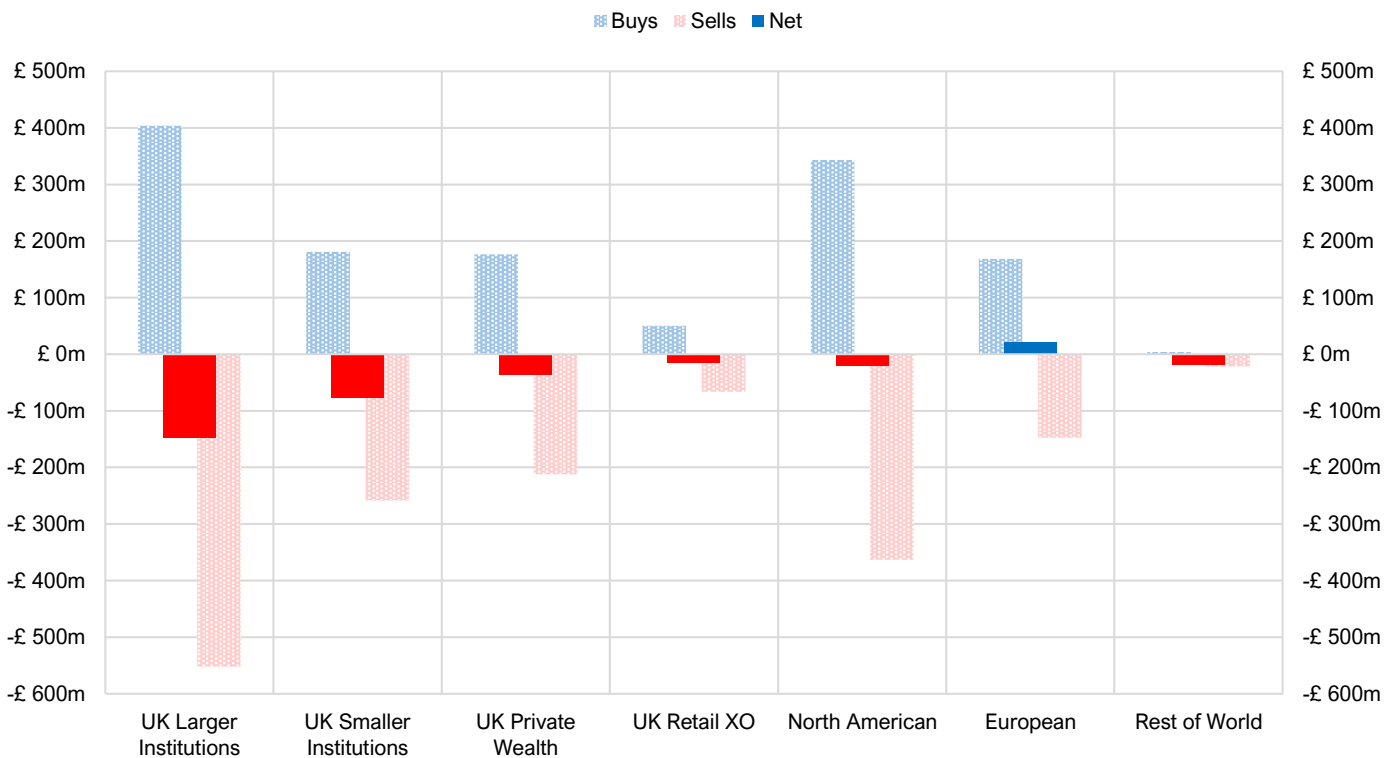


Figure 27: All Investors Buying / Selling – H2 2021 – by Investor Type



Source: FactSet, Radnor

By Sub Index – Buying / Selling, June through December 2021

Figure 28: Small Molecule – H2 2021 by Investor Type

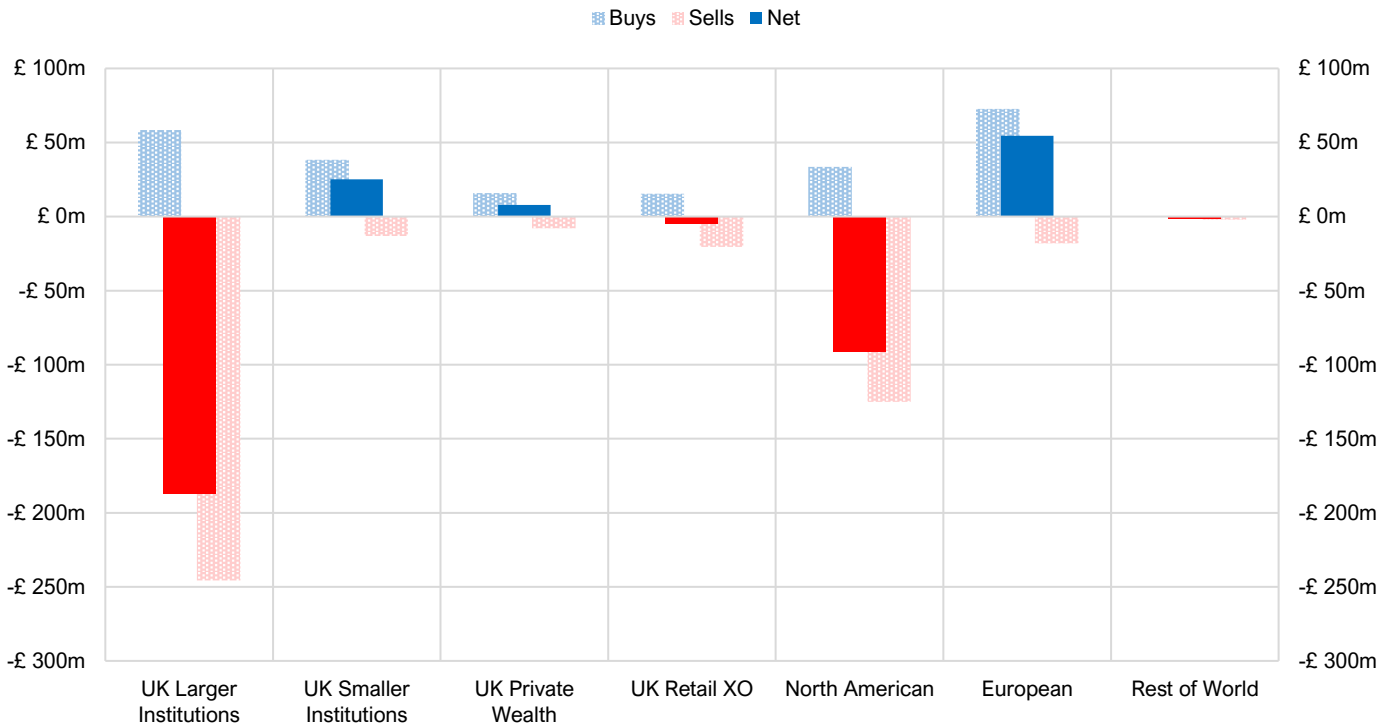
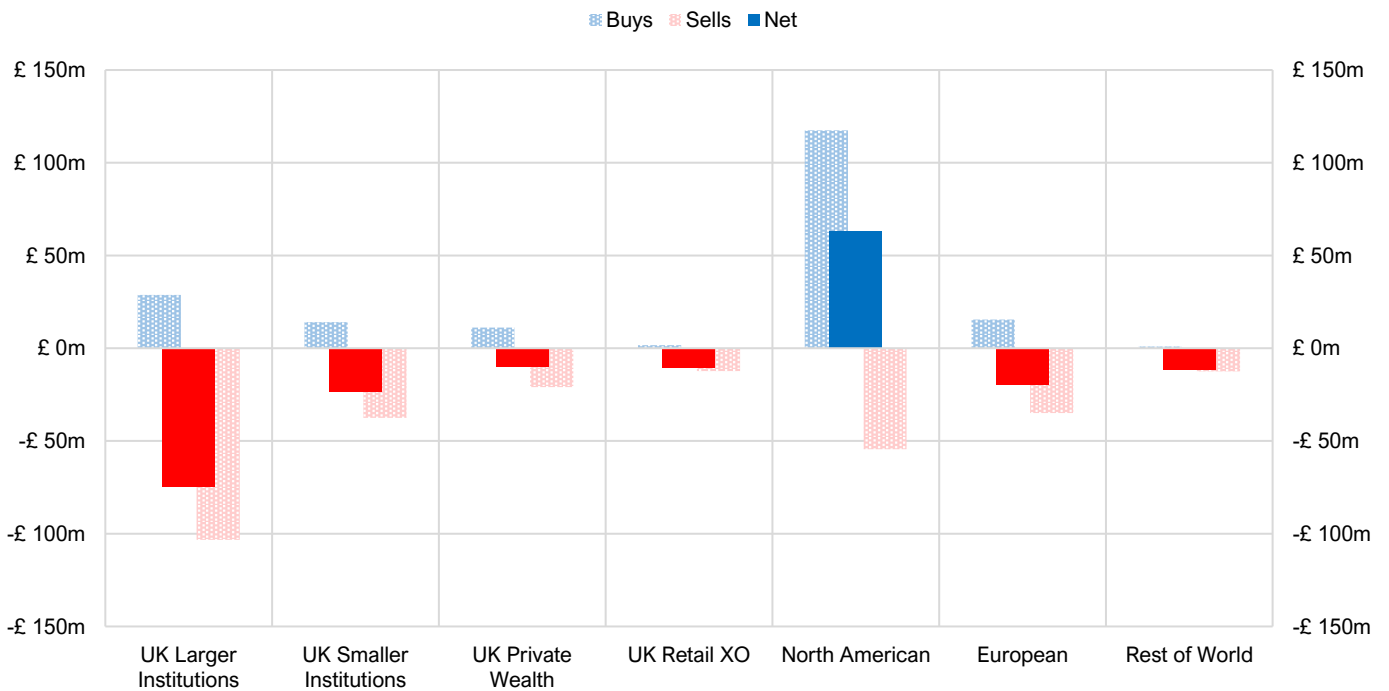


Figure 29: Cell & Gene Therapy – H2 2021 by Investor Type



Source: FactSet, Radnor

Figure 30: Diagnostics – H2 2021 by Investor Type

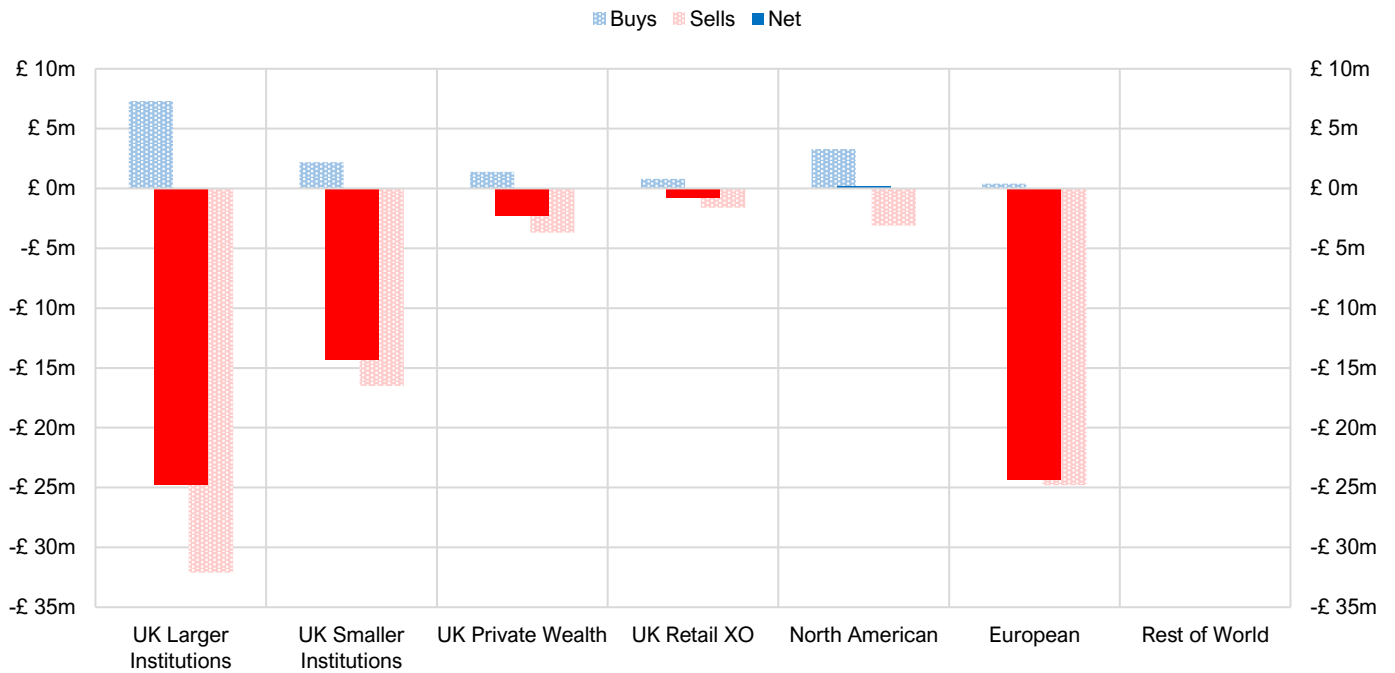
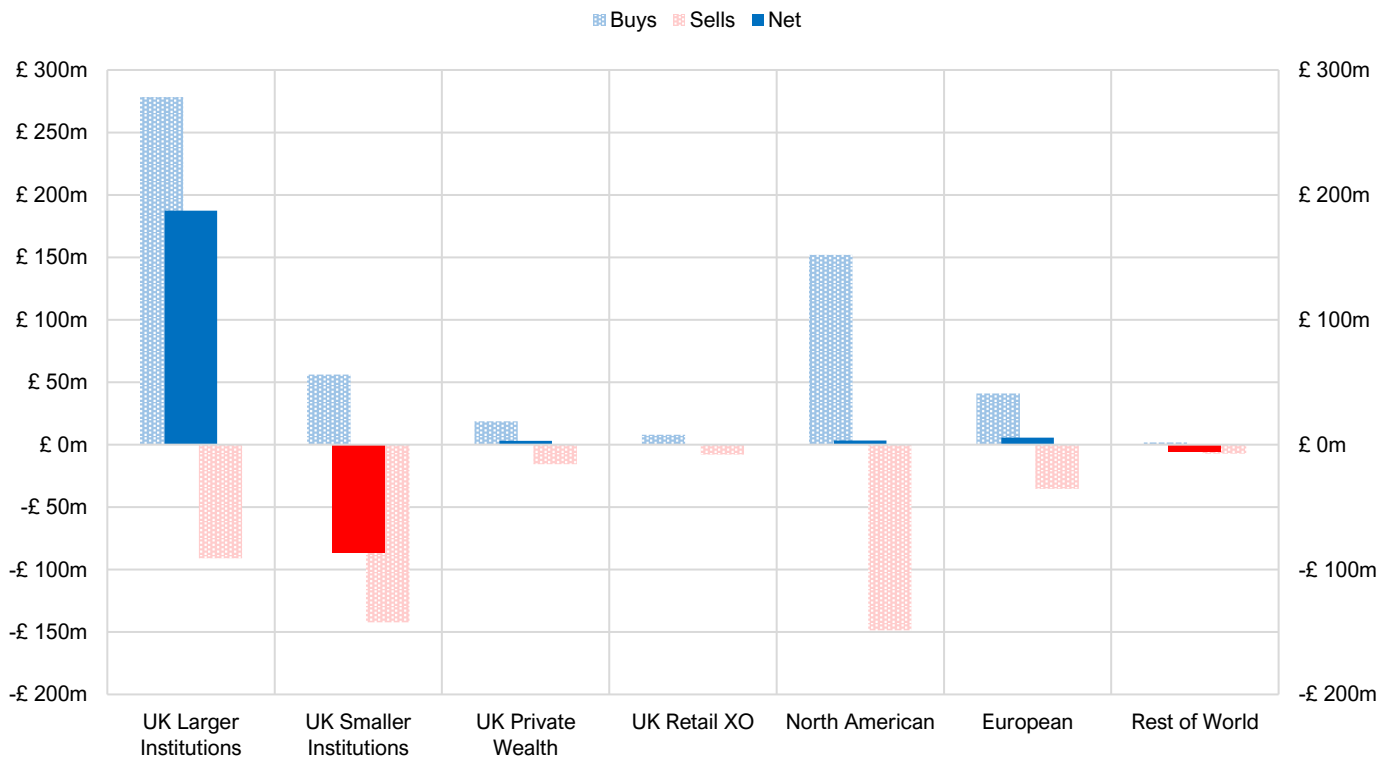


Figure 31: Research Tools & Data – H2 2021 by Investor Type



Source: FactSet, Radnor

Figure 32: Medical Devices – H2 2021 by Investor Type

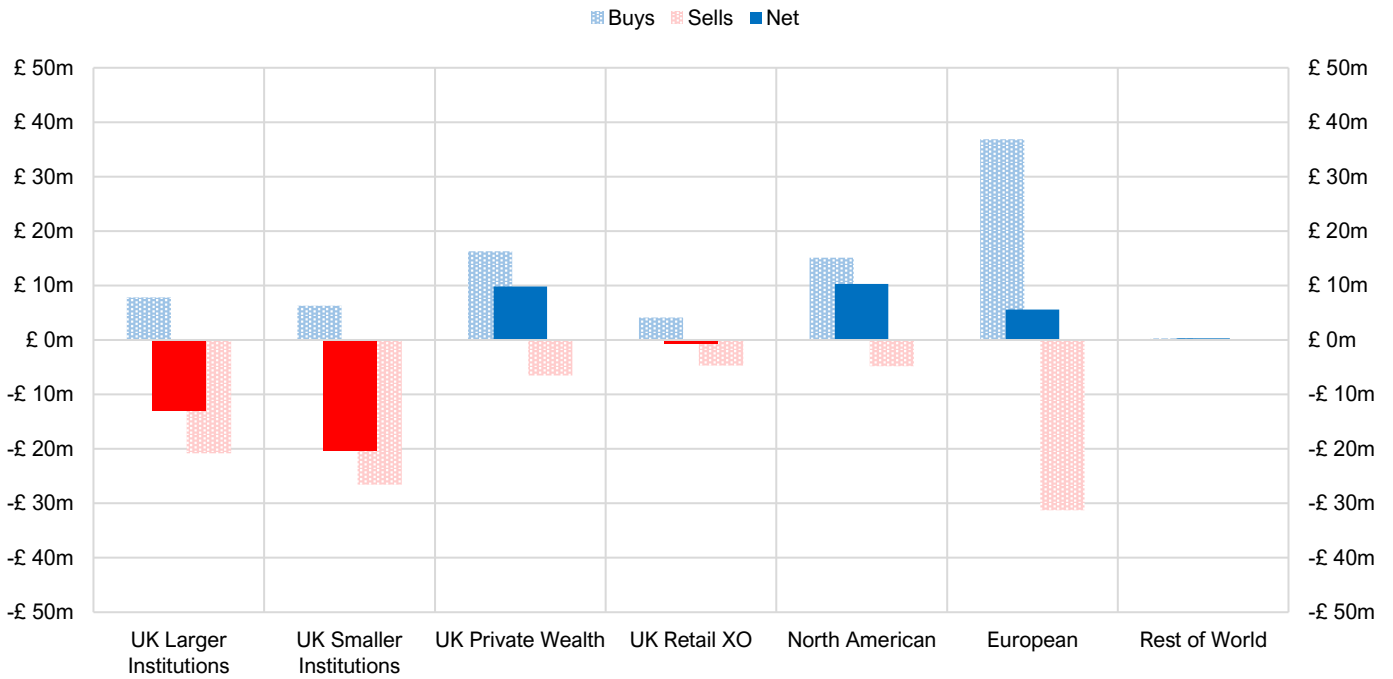
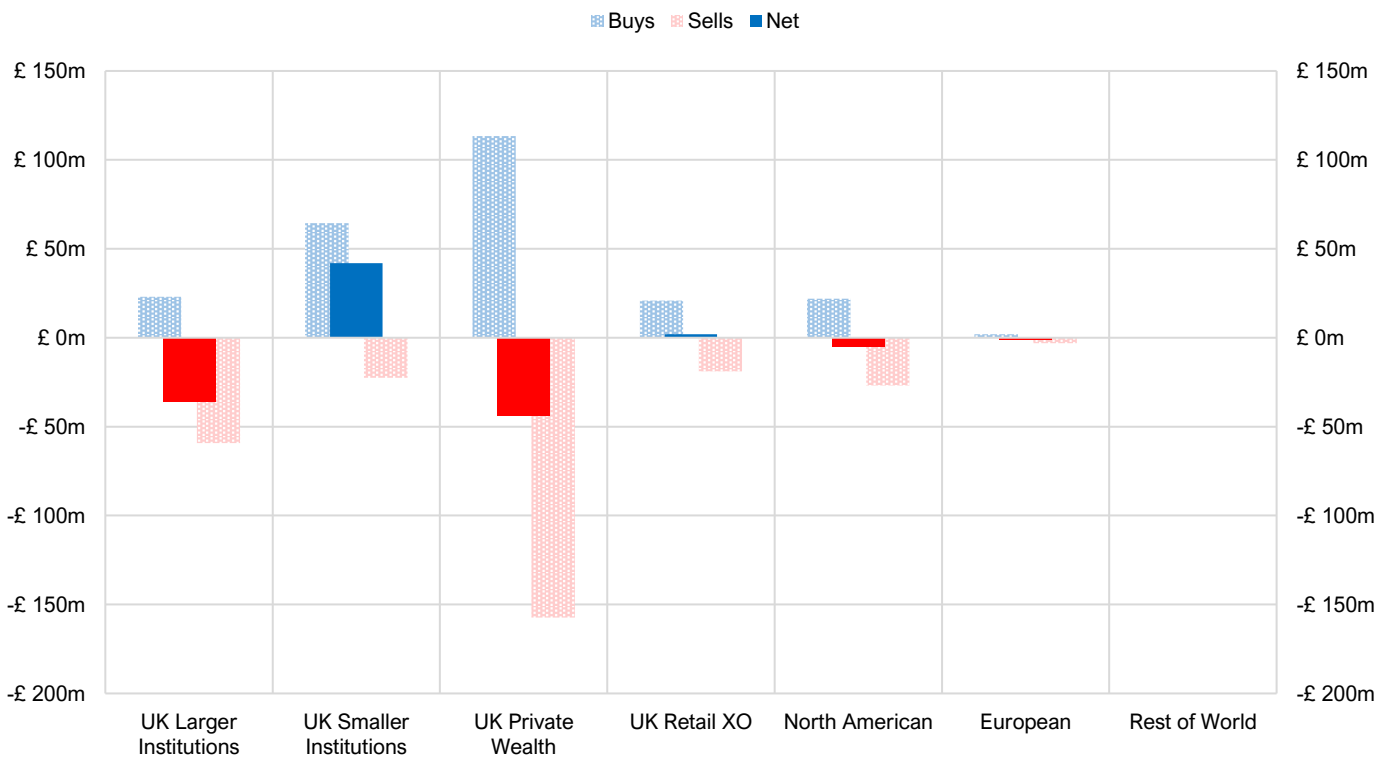


Figure 33: Commercialisation & Investment Vehicles – H2 2021 by Investor Type



Source: FactSet, Radnor

By Investor Type – Buying / Selling, June through December 2021

Figure 34: UK Large Institution – H2 2021 by Sub Index

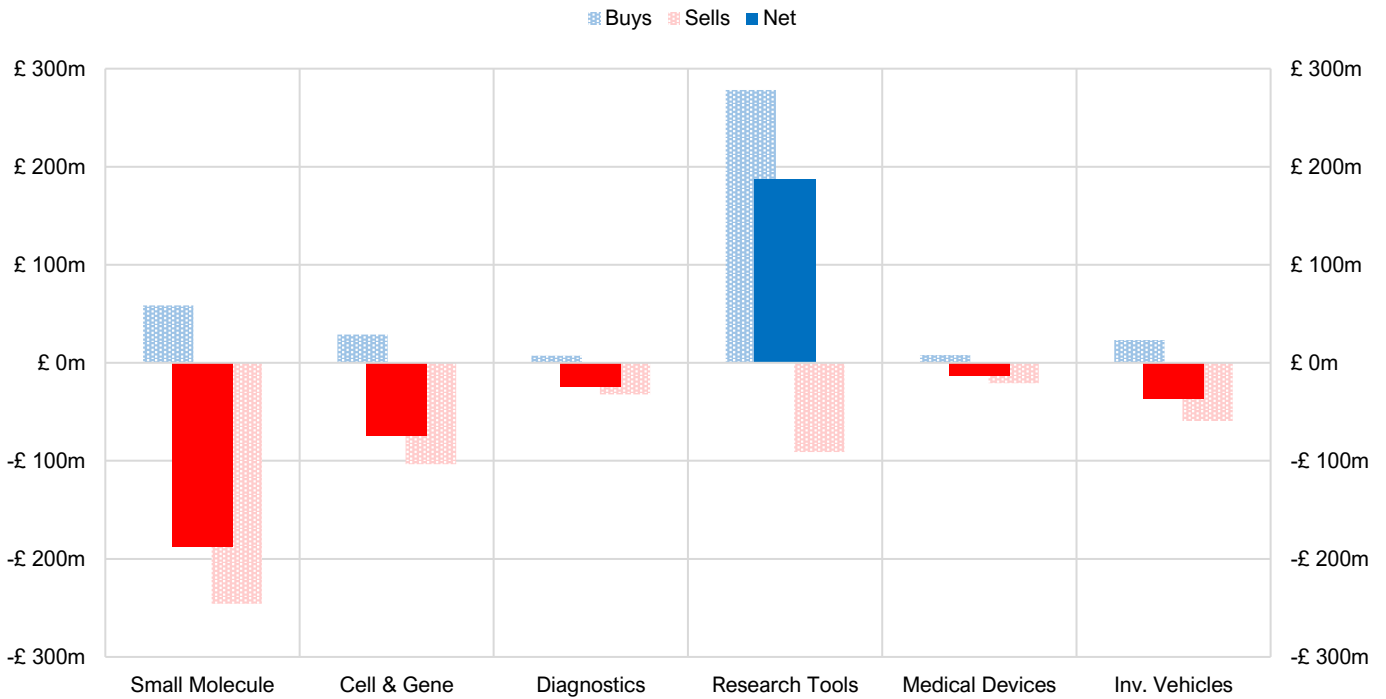
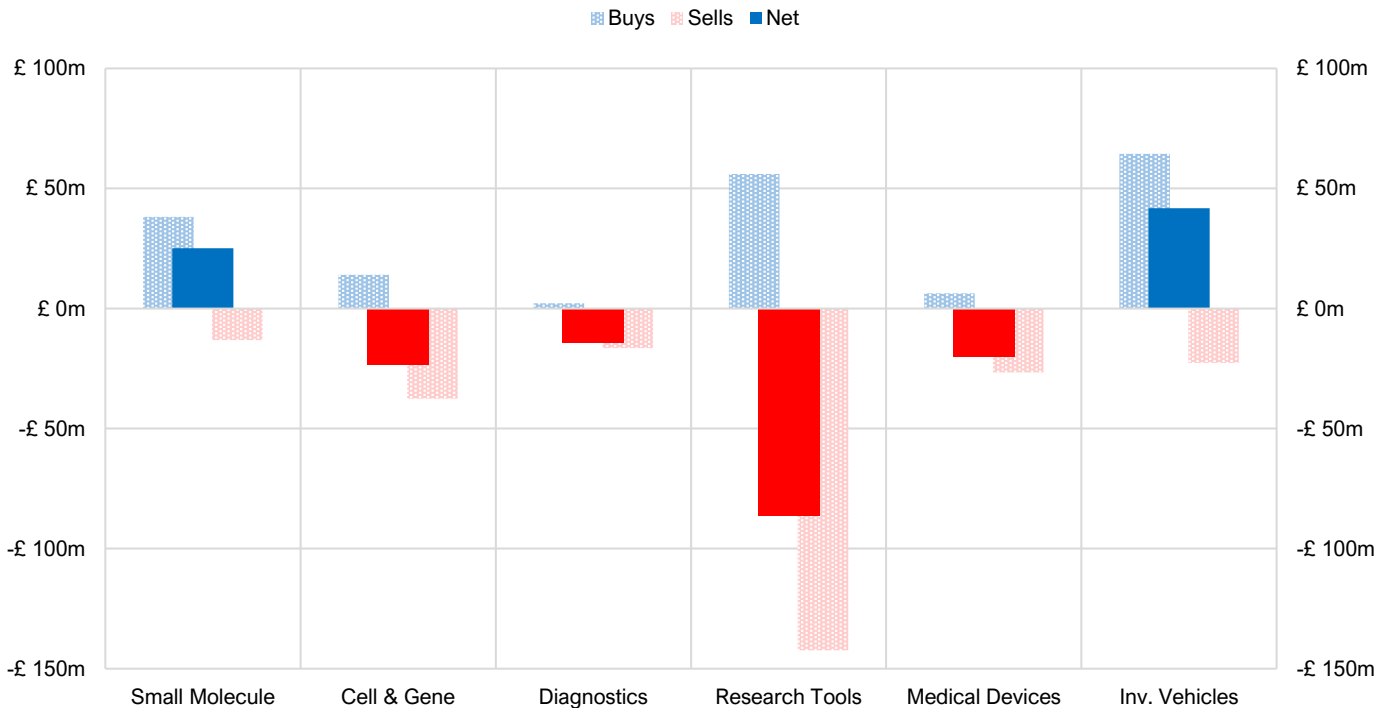


Figure 35: UK Smaller Institution – H2 2021 by Sub Index



Source: FactSet, Radnor

Figure 36: UK Private Wealth – H2 2021 by Sub Index

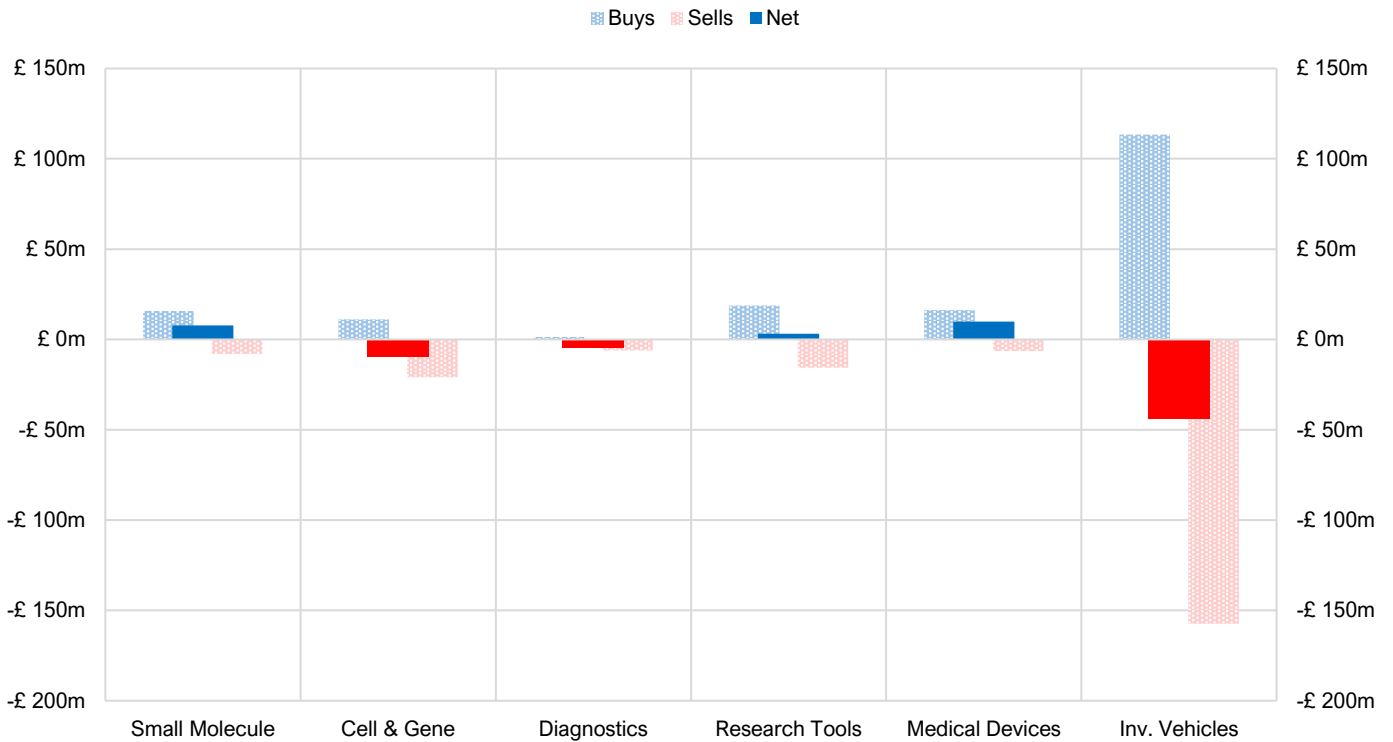
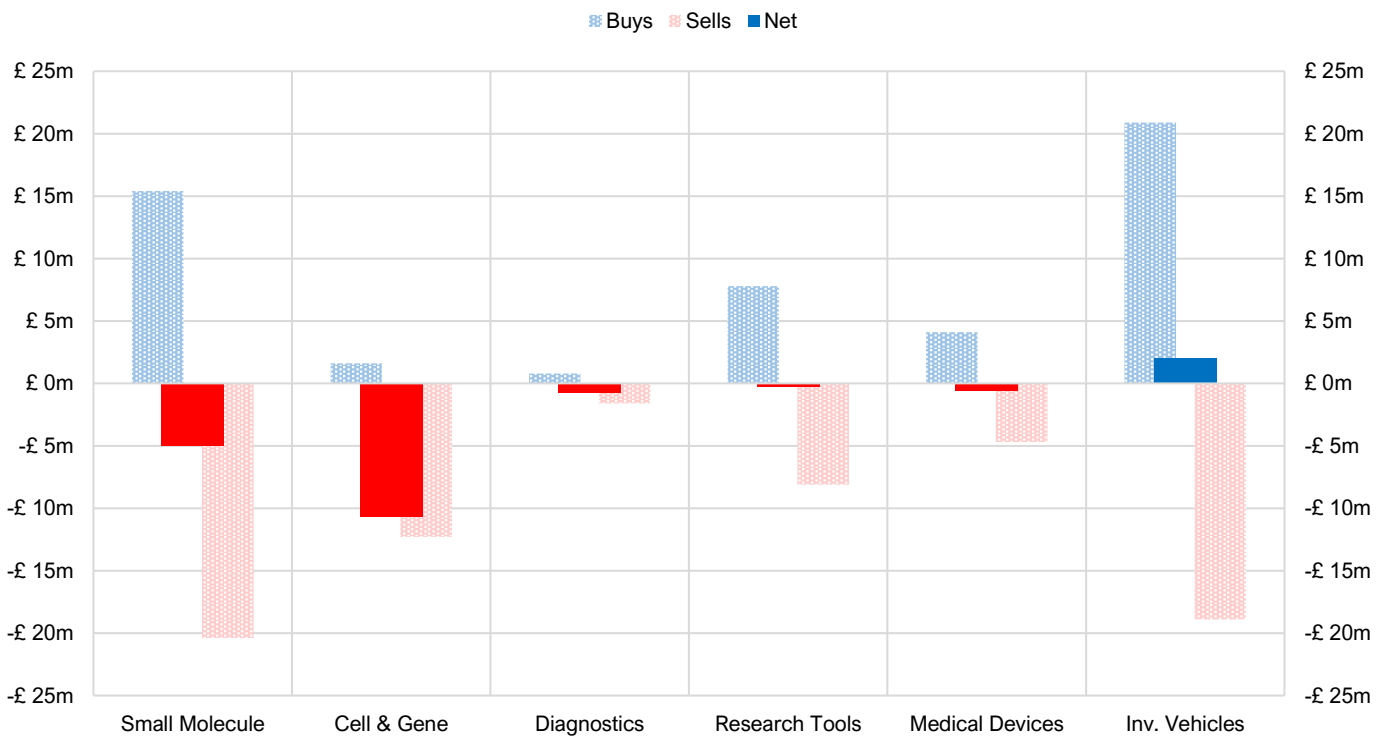


Figure 37: UK Retail Execution Only – H2 2021 by Sub Index



Source: FactSet, Radnor

Figure 38: North American Investors – H2 2021 by Sub Index

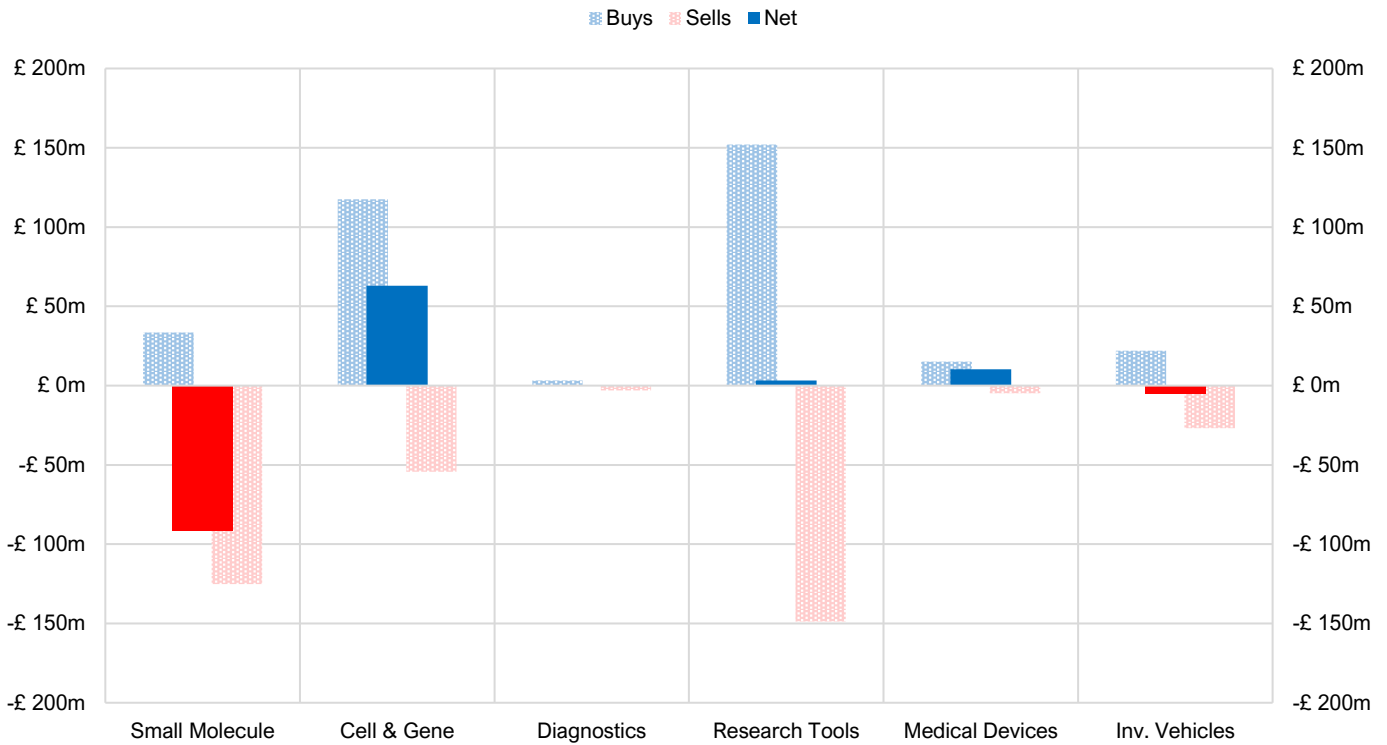
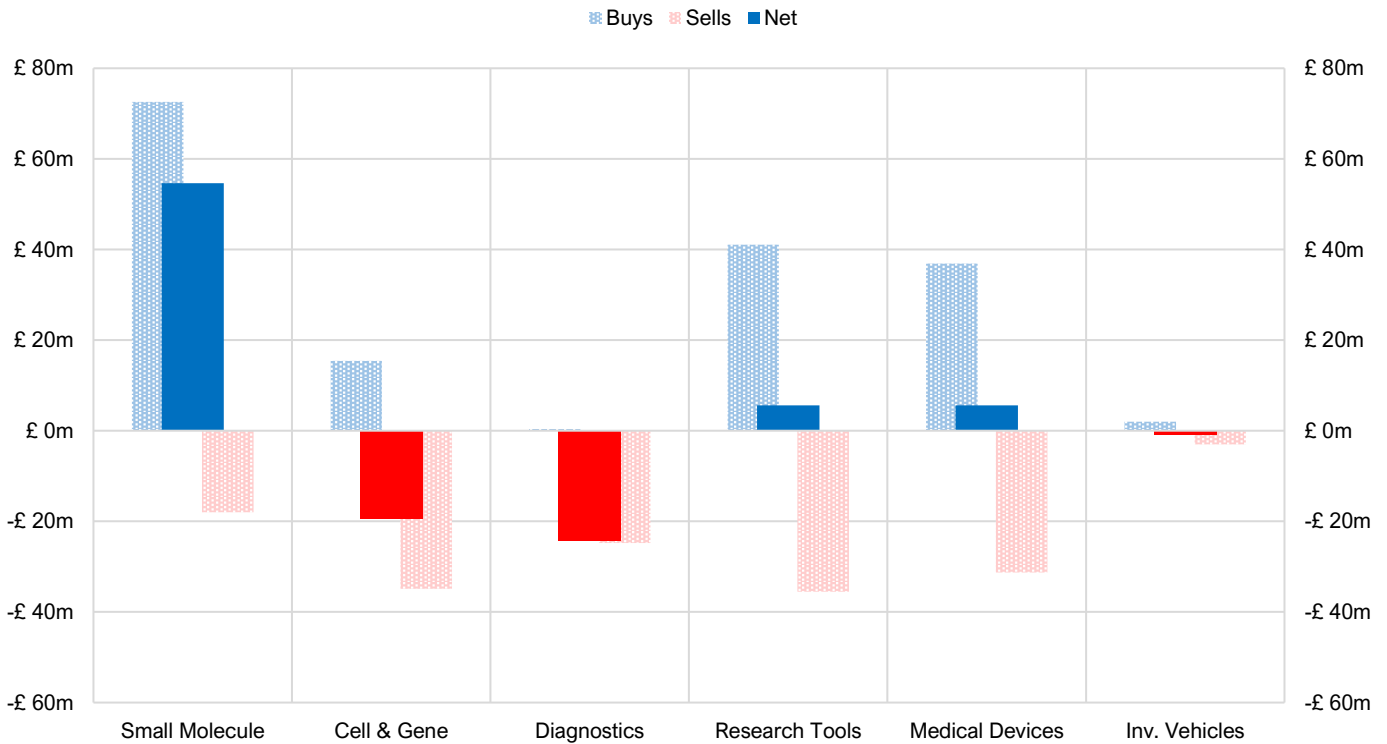
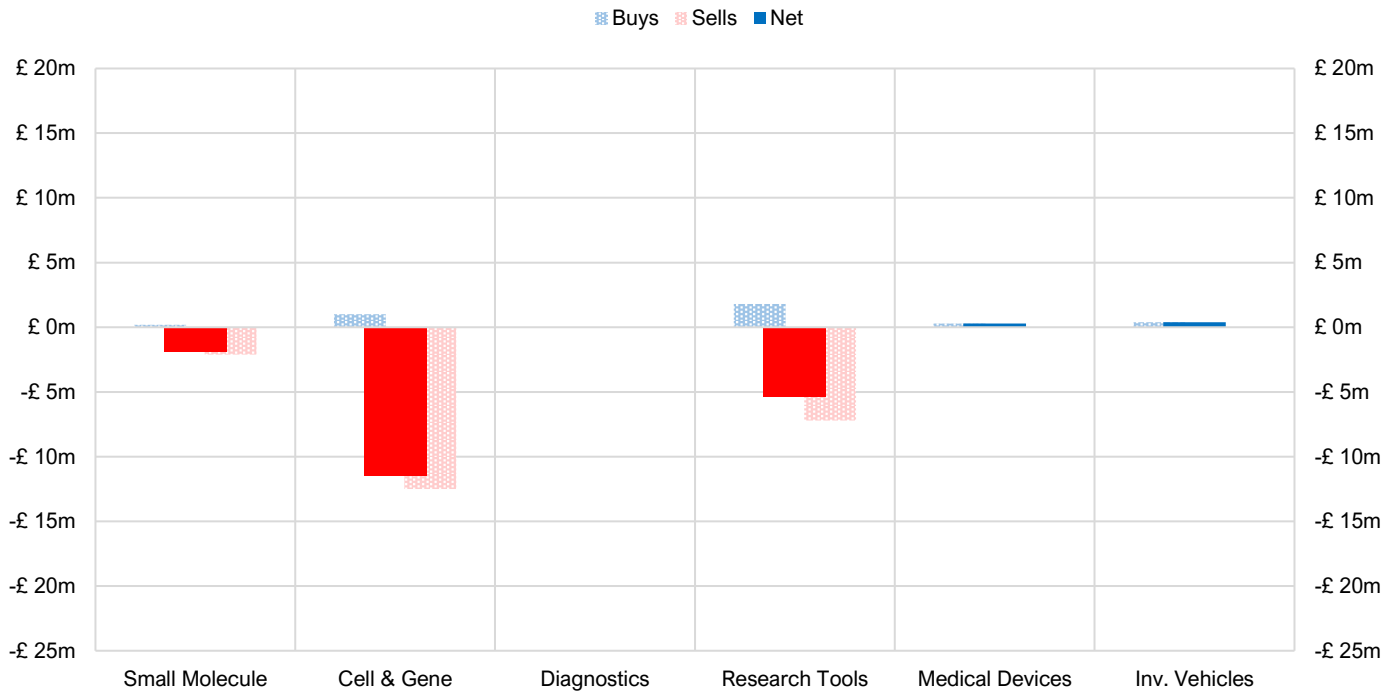


Figure 39: European Investors – H2 2021 by Sub Index



Source: FactSet, Radnor

Figure 40: Rest of the World Investors - H2 2021 by Sub Index



Source: FactSet, Radnor

By Investor Type – Net New Investors by Number, Full Year 2021

In Figures 41 – 46 below, we show how many **net** new investors entered the sector during 2021. We break these investor numbers down by each individual sub-index.

- By number of active UK Institutional investors, 2021 was a positive year. **Research Tools, Small Molecule** and **Investment Vehicles** all saw YoY increases.
- North American Investors continued their positive trend from 2020 with **Cell & Gene** (+5) and **Research Tools** (+9) seeing the largest number of new entrants.
- In a similar fashion, UK Private Wealth names continued to increase their presence and overall were the largest single source of new investors in the sector.

Figure 41: Small Molecule – Net New Investors

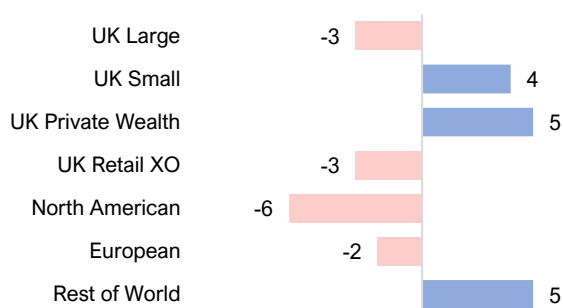


Figure 42: Cell & Gene Therapy – Net New Investors

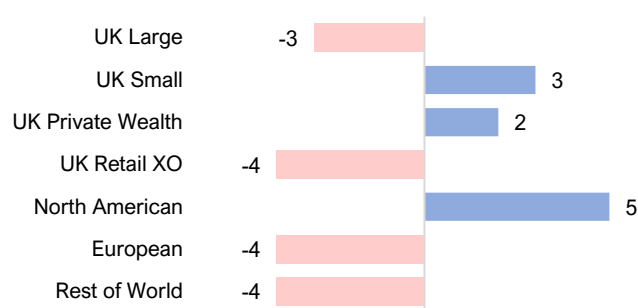


Figure 43: Research Tools – Net New Investors

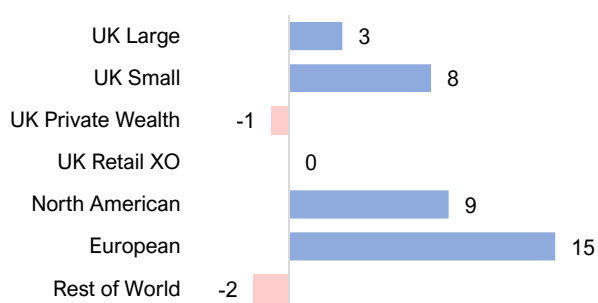


Figure 44: Medical Devices – Net New Investors

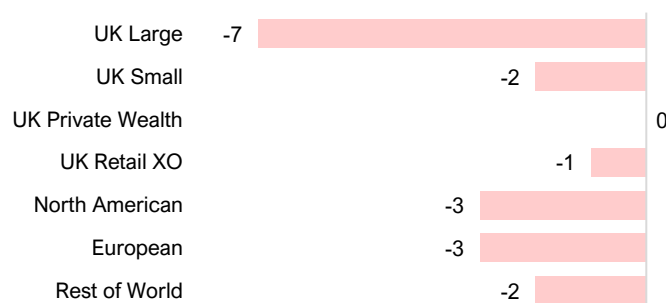


Figure 45: Diagnostics – Net New Investors

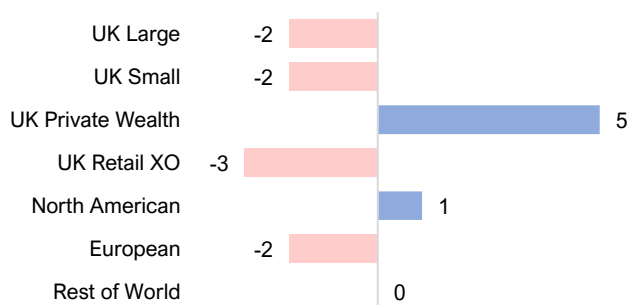
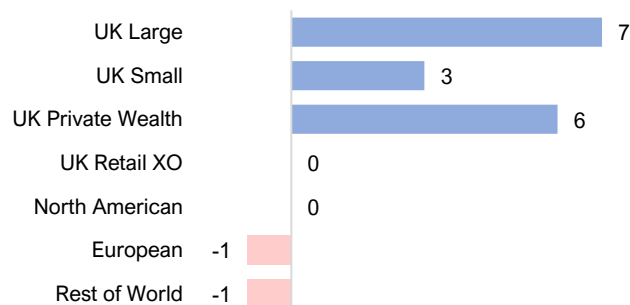


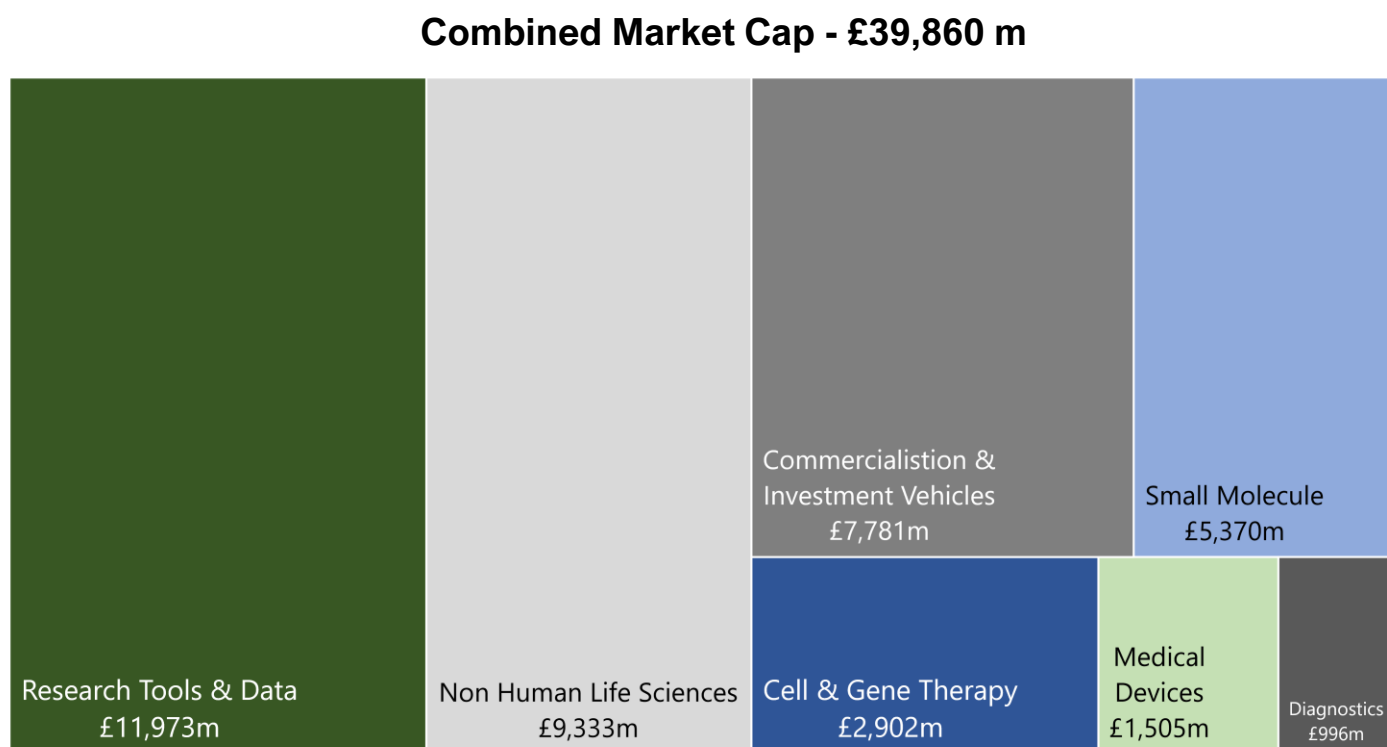
Figure 46: Investment Vehicles – Net New Investors



Source: FactSet, Radnor

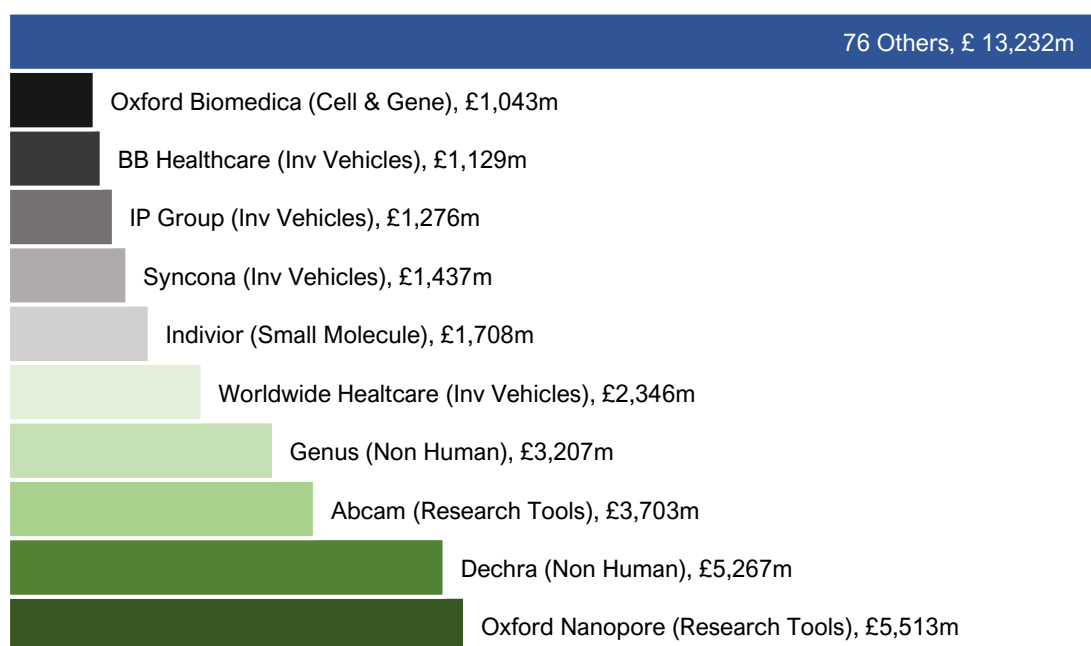
Appendix:

Figure 47: Broad Biotech Index – Market Cap Analysis



Source: FactSet, Radnor

Figure 48: Broad Biotech Index – Top Ten Constituents by Market Cap



Source: FactSet, Radnor

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