



The Association of the British Pharmaceutical Industry (ABPI)

UK BioIndustry Association (BIA)

Submission to the Migration Advisory Committee (MAC) call for evidence: EEA workers in the UK labour market

1. About the ABPI and the BIA

- 1.1 The Association of the British Pharmaceutical Industry (ABPI)¹ represents innovative research-based biopharmaceutical companies, large, medium and small, leading an exciting new era of biosciences in the UK. We represent companies who are researching and developing the majority of the current medicines pipeline, ensuring the UK remains at the forefront of helping patients prevent and overcome disease.
- 1.2 The BioIndustry Association (BIA)² is the trade association for innovative life sciences organisations in the UK. BIA members include emerging and more established bioscience companies, large pharmaceutical companies, academic research and philanthropic organisations, and service providers to the UK bioscience sector. Our goal is to secure the UK's position as a global hub and as the best location for innovative research and commercialisation, enabling our world-leading research base to deliver healthcare solutions that can truly make a difference to people's lives.
- 1.3 The ABPI and the BIA have worked closely together since the outcome of the referendum on the UK's membership of the European Union. Our objective is to ensure that the UK life sciences sector is in as strong a position as possible as the UK establishes a new relationship with the EU in the interests of public health and safety.

2. Executive Summary

- 2.1 In July 2016, the ABPI and BIA worked with Government to establish a joint industry and Government forum to discuss the impact of the UK leaving the EU on UK life sciences. The UK EU Life Sciences Steering Group³ is currently co-chaired by GlaxoSmithKline (GSK) and AstraZeneca, with the Life Sciences industry further represented by the ABPI, BIA and the Association of the British Healthcare Industry (ABHI). Government ministers and civil servants are also members of the Steering Group.
- 2.2 The key objective of the Steering Group is to determine how to create a world-leading Life Sciences environment in the UK outside of the EU, including ensuring a framework for a continued dialogue between the life science industry and the government.

¹ www.abpi.org.uk

² www.bioindustry.org

³ <https://www.gov.uk/government/speeches/life-sciences-a-new-relationship-with-the-european-union>

2.3 Under the direction of the Steering Group, the ABPI and BIA published a policy report⁴ mapping out the key policy areas for the bio-pharmaceutical industry. Over 50 hours of working group meetings with over 200 experts in 90 organisations informed this policy analysis. The issues identified were as follows:

- Scientific research;
- Regulation of medicines;
- Trade;
- Access to talent.

These points were raised personally with the Prime Minister by Steve Bates of the BIA at a meeting on Nov 21st 2016⁵.

2.4 As set out in the above report, the ability for life sciences companies to attract and retain talent is a key factor in ensuring that the UK is a global leader in life sciences. There are currently 62,000⁶ high skill, high value jobs in the pharmaceutical industry in the UK and with strong clusters in the South East, North West and Scotland, the sector brings economic benefits across the country. Pharmaceutical manufacturing employees have the highest Gross Value Added (GVA) of any high-technology sector – over £330,000 per employee⁷.

2.5 ABPI's research has identified that there are a number of critical skills gaps facing the sector and highlights specific gaps in interdisciplinary areas involving maths and biology.⁸ This research also highlights long-standing skills shortages in translational medicine, clinical pharmacology and bioinformatics. The ability to attract top talent will be critical if the UK is to become a leader in emerging skills areas e.g. device technologies, digital health, physiological modelling, genomics and advanced manufacturing. As the UK leaves the EU there needs to be a UK immigration system in place that is needs-based, straightforward and rapid – not just for those from the EU but also for other workers.

2.6 Currently migrants from both EEA and non-EEA countries help to fill these gaps. This is demonstrated by the fact that despite there being an 18 per cent increase in the number of STEM graduates in the UK between 2004 and 2014, a significant portion of this increase was due to an increased number of non-UK domiciled graduates. The number of UK domiciled STEM graduates increased by 14 per cent while the number of non-UK EU domiciled STEM graduates increased by 72 per cent and the number of non-EU domiciled STEM graduates increased by 51 per cent⁹.

2.7 It is therefore crucial to the future success of the life sciences industry that the number and quality of STEM graduates and academic researchers who are able to work in the UK life science sector

⁴ Maintaining and growing the UK's world leading Life Sciences sector in the context of leaving the EU. <http://www.abpi.org.uk/our-work/library/industry/Documents/UK-EU-Steering-Group-Report.pdf>

⁵ <http://www.cambridge-news.co.uk/business/technology/prime-minister-theresa-cambridge-pledges-12207739>

⁶ Office for National Statistics, "JOBS03: Employee jobs by industry" (December 2016), <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeejobsbyindustryjobs03>

⁷ Calculation performed by The Office of Health Economics. Data supplied from Office of National Statistics (ONS), Note: GVA per worker at industry level has been calculated by dividing industries' GVA at current prices (2013) by the number of workers. Number of jobs at industry level are available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeejobsbyindustryjobs03> [accessed on August 31, 2016]

⁸ http://www.abpi.org.uk/our-work/library/industry/Documents/Skills_Gap_Industry.pdf

⁹ The Gatsby Charitable Foundation, "Key Indicators in STEM education", (December 2014). Available from: <http://www.gatsby.org.uk/uploads/education/reports/pdf/key-indicators-in-stem-education-gatsby.pdf>

and academic science base continues to grow, and the Government's new approach to immigration must take this into account. Any disruption to the UK science base could undermine the current research ecosystem and would have a severe impact on the UK life sciences industry.

- 2.8 From additional research undertaken to inform this submission, we know that the proportion of non-UK employees working for our members who are based in the UK, ranges from between 17 and 41%.¹⁰ This represents a significant proportion of the work force of biopharmaceutical companies.
- 2.9 However, the current immigration system is overly bureaucratic. Our member companies often employ specialist companies to navigate the complex system. In the context of a new immigration system being established following the UK leaving the EU, there is an opportunity to simplify the overall system, any new migration policy should ensure no new red tape is put on entrepreneurial British businesses hiring the talent they need to succeed. This should form a recommendation from the Migration Advisory Committee to Government.
- 2.10 As part of this overall system, Tier 2 intra-company transfer visas (ICTs) are important mechanisms for global biopharmaceutical companies to fill highly skilled roles (alongside scientists and researchers our sector requires management, IP law, finance and regulatory experts), facilitate collaboration and innovation through secondments and projects, and encourage talent development through the cross-fertilisation of skills across countries. The ability to do this acts as an additional incentive for biopharmaceutical companies to maintain their European headquarters in the UK. As such, the Committee should recommend to Government that any reduction in the availability of or increase in the cost of such ICTs should be avoided.
- 2.11 The recently published Life Sciences Industrial Strategy¹¹ is an ambitious document setting out a blueprint to grow the UK's global position in life sciences. The strategy places an important focus on skills as one of the five key themes identified in the report, which the ABPI and BIA support. The Strategy includes recommendations for a new migration system which allows recruitment and retention of highly skilled workers from the EU and beyond, and does not impede intra-company transfers.

3. Recommendations

The ABPI and BIA recommend that the Migration Advisory Committee include the following in final recommendations to Government:

- 3.1 As the UK establishes a new immigration system after the UK leaves the EU, the Government should review the current immigration system in broad terms, simplifying the processes that allow companies to recruit talent from across the globe. The Committee should seek to recommend an immigration system which:
- 3.1.1 Facilitates ease of movement for talented/skilled students, researchers and workers;
 - 3.1.2 Is employer and needs-based;
 - 3.1.3 Is straightforward and rapid to administer;
 - 3.1.4 Avoids additional costs to industry;

¹⁰ Data from the following companies: AstraZeneca, Gilead, GSK, Immunocore, Lilly, Oxford Biomedica, UCB and one other

¹¹ <https://www.gov.uk/government/publications/life-sciences-industrial-strategy>

- 3.1.5 Provides certainty of outcome for both applicants and the company wishing to employing them;
 - 3.1.6 Has a reciprocal agreement with Europe whilst also improving the current system for immigration from the rest of the world;
 - 3.1.7 Continues the intra-company transfer process to facilitate movement into the UK of people employed overseas by biopharmaceutical companies and for UK nationals to spend time in other company sites in Europe and beyond;
 - 3.1.8 Gives the option of issuing time-limited visas which allow international secondees, from the EEA and the rest of the world, to work in the UK for a limited period of time in order to support personal development and ensure the most appropriate and qualified talent supports various project-based work;
 - 3.1.9 Avoids any additional restrictions on the right to work for spouses and other family members, as this would further disadvantage the UK in recruiting the most talented people to fill key roles;
 - 3.1.10 Guarantees the rights of scientists, researchers and highly-skilled EU citizens already in the UK, alongside securing the rights of UK citizens working and operating in the EU;
 - 3.1.11 Strongly advocates the need for frictionless business travel between the UK and EEA nations.
- 3.2 There should be no reduction in the ability for companies to use Tier 2 intra-company transfer visas (ICTs). There should be no increase in the cost of applying for Tier 2 ICTs. Two additional measures should be proposed:
- 3.2.1 Increasing the number of visa allocations to bring key talent to the UK from both within and outside the EEA;
 - 3.2.2 Remove quotas for ICT visas for non-UK citizens on assignments less than 12 months in duration;
 - 3.2.3 A similar simple and fast system is needed for UK life science SMEs who are not (yet) multinational and require similar skilled workers at pace.
- 3.3 Any potential change to access for EEA nationals to work in the UK will require a significant transition period to provide stability and continuity and to ensure that the biopharmaceutical industry avoids a short term skills shortage.
- 3.4 The UK should seek to ensure mutual recognition of professional qualifications gained within the EU (for example, for clinicians, pharmacists and Qualified Persons (QPs)).
- 3.5 Remove international students from net migration figure targets, and develop an immigration system which facilitates ease of movement for talented students and researchers as well as employees.
- 3.6 The Committee should advise the Government to do more to convey a positive narrative around the value of immigration. Ministerial speeches and documents should build political and public support for the employer led system for highly skilled talent in this sector. Industry recognises that it has a role to play in this and would welcome the opportunity to work with Government.
- 3.7 The Migration Advisory Committee should recommend that the Government implement the recommendations set out in the Life Sciences Industrial Strategy at the earliest possible opportunity in order to address some of the skills gaps in the life science sector.

3.8 The UK life science sector is keen to explore collaborative and novel ways to ensure a positive outcome for the UK and its future economy through Brexit. We continue to seek engagement with Home Office Ministers to offer creative solutions to the administrative, technical and procedural questions that the establishment of a new immigration system will need for our crucial sector for the economy.

4. EEA Migration Trends

- **Please provide evidence on the characteristics (e.g. types of jobs migrants perform; skill levels, etc) of EEA migrants in your particular sector/local area/ region. How do these differ from UK workers? And from non-EEA workers?**

- 4.1 The life sciences sector faces skills gaps in the UK that EEA and non-EEA migrants help to fill.
- 4.2 The skills required in the biopharmaceutical industry to develop and deliver innovative medicines to patients are often very specific. More than a quarter of jobs in the industry are in highly skilled research and development (R&D) roles which mostly require STEM degrees.¹²
- 4.3 The ABPI collects data on the skills gap in the biopharmaceutical sector regularly by surveying industry. The ABPI's 2015 Skills Survey of 59 life science organisations identified a number of critical skills gaps facing the sector.¹³ The most concerning gaps were in interdisciplinary areas involving mathematics and biology. The Survey also flagged up serious long-standing skills shortages, such as in translational medicine/clinical pharmacology, which requires complex understanding to bridge the gap between bench and bedside.¹⁴
- 4.4 EEA and non-EEA migrants help to fill these gaps. Despite there being an 18 per cent increase in the number of STEM graduates in the UK between 2004 and 2014, a significant portion of this increase was due to an increased number of non-UK domiciled graduates. The number of UK domiciled STEM graduates increased by 14 per cent while the number of non-UK EU domiciled STEM graduates increased by 72 per cent and the number of non-EU domiciled STEM graduates increased by 51 per cent.¹⁵ It is crucial to the future success of the life sciences industry that the number and quality of STEM graduates who are able to work in the UK life science sector and academic science base continues to grow, and the Government's new approach to immigration must take this into account.

In oral evidence to the House of Lords Science and Technology Committee on 17 October, Dave Allen Senior Vice President Respiratory Disease R&D, GSK talking about the UK stated that:

'with a population of 65 million we cannot expect to have all the talent that we need all of the time'

- 4.5 As set out above, a high proportion of jobs in the biopharmaceutical industry are technical R&D jobs, some of which are filled by EEA and non-EEA employees. Please see below statistics on the percentage of employees from the UK, EU and rest of the world in a number of biopharmaceutical companies.

¹² Social Mobility Commission. Socio-Economic Diversity in Life Sciences and Investment Banking. July 2016. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/549994/Socio-economic_diversity_in_life_sciences_and_investment_banking.pdf

¹³ ABPI, "Bridging the skills gap in the biopharmaceutical industry: Maintaining the UK's leading position in life sciences" (November 2015) http://www.abpi.org.uk/our-work/library/industry/Documents/Skills_Gap_Industry.pdf

¹⁴ ABPI. UK lacks the skills to research and develop the medicines of the future. November 2015. <http://www.abpi.org.uk/media-centre/newsreleases/2015/Pages/111115.aspx>

¹⁵ The Gatsby Charitable Foundation, "Key Indicators in STEM education", (December 2014). Available from: <http://www.gatsby.org.uk/uploads/education/reports/pdf/key-indicators-in-stem-education-gatsby.pdf>

- **Figure 1: UCB demographic breakdown in the UK showing the significant impact of non-UK workers both in R&D and in management roles (data accurate as of March 2017)**

	R&D	Non R&D	Total heads	Percentage
EU	70	22	92	15.3
Rest of World	31	7	38	6.3
UK	301	171	472	78.4
Total non UK	101	29	130	21.6

Although the overall percentage of non-UK nationals at UCB is under 22%, this rises to 25% when considering just roles in research and development

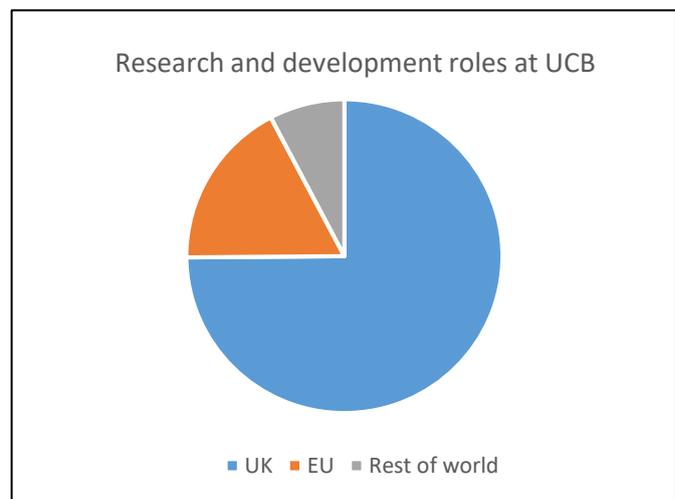
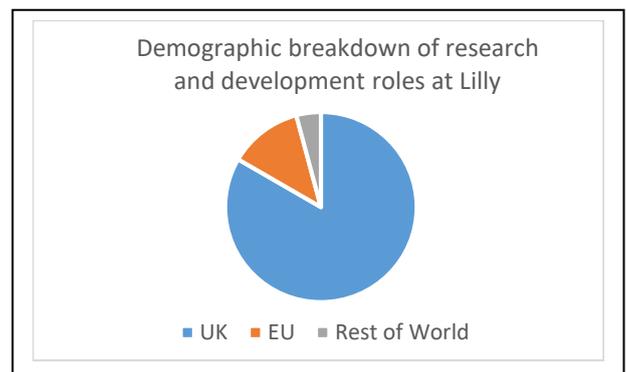


Figure 2: Research and development roles at UCB

- **Figure 3: Lilly demographic breakdown in the UK related to R&D roles showing the reliance on EU highly skilled workers**

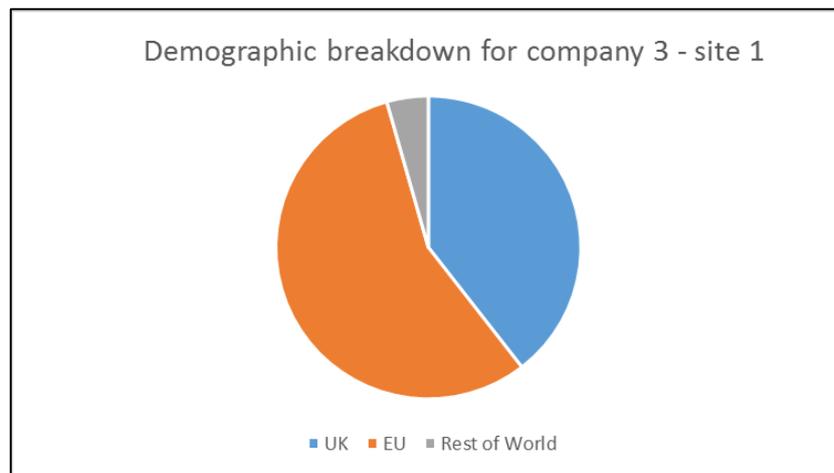
	R&D roles in UK	Percentage
EU	42	12
Rest of World	14	5
UK	281	83
Total non UK	56	17



- **Figure 4: Company 3 demographic breakdown in the UK showing the significant impact of Non-UK workers at one of the company sites**

	Site 1	Overall staff percentage
EU	56.1	27.8
Rest of World	4.4	5.4
UK	39.5	66.8
Total non UK	60.5	33.2

- **Figure 5: The demographic breakdown of site 1 for Company 3**



4.6 At the Company 3 site 1, located in the north-west of England, the ability to recruit and retain both EEA and non-EEA workers is fundamental to the work carried out on the site as it serves markets across Europe, the Middle East and Africa. The skill set to perform these roles (mainly in HR, finance and IT) requires trained professionals with a number of years' experience within their sector.

4.7 AstraZeneca tell us that the ability to employ highly skilled talent from the UK, EU and around the world is critical to their business success. Any restriction to their continued access to global talent pools would impact their ability to discover and deliver life changing medicines to patients.

4.8 AstraZeneca employs 6,550 individuals in the UK of which 550 (8.4%) are from Europe and a further 200 (3%) from the rest of the world (ROW). However, by function there are some marked differences and particularly of note is the higher percentage of European and ROW nationalities in the Scientific, Development, Medical Affairs and Strategic Commercial disciplines. This is a direct reflection of the global skill pools that they use to source their highly skilled workforce; scientific research and development requires many specialist scientific skills, which they find particularly difficult to source from the UK labour market. In contrast, their manufacturing workforce, based in the North West of England, has only 2.2% of the workforce that are not of UK nationality. In this location AstraZeneca is able to attract and train people in the necessary skills for complex product manufacture largely from within the UK.

4.9 Nearly two thirds of AstraZeneca’s UK employees (close to 4,000) are located in the North-West of England, in Macclesfield, Speke and Alderley Park. Over 2,000 are based in Global HQ and research centres in the Cambridge area.

- **Figure 6: AstraZeneca demographic breakdown of UK-based employees showing the significant impact of non-UK workers in four important disciplines**

	Scientific	Development	Medical Affairs	Strategic Commercial	Percentage in these four areas
EU	147	51	29	46	16.9
Rest of world	39	10	6	19	4.6
UK	863	164	101	144	78.6
Total non-UK	186	61	35	65	21.5

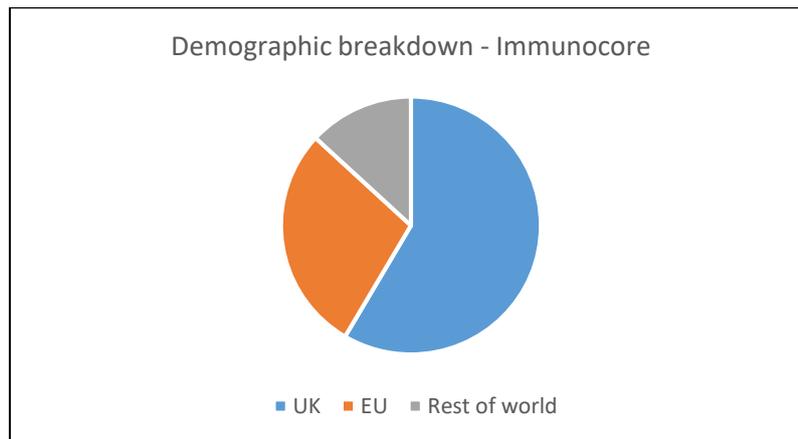
4.10 Similar concerns were raised by Gilead. Overall about 20% of their UK employees are non-UK EU nationals, but this rises to 25% at their international headquarters in Uxbridge. On this site more than half of these EU nationals are in mid to senior management roles. They also tell us that 48% of the non-UK EU nationals work within the R&D function across their three UK sites – providing further evidence that industrial research and development is at risk of being adversely affected when the UK leaves the EU.

4.11 In GSK approximately 10% of their UK workforce is comprised of EEA nationals, and a further 5% are non-UK non-EEA nationals. The largest number of EEA Nationals work in the Pharmaceutical Research and Development unit, followed by Global Support Functions and Global Manufacturing and Supply. The skills that these people bring were described as ‘*absolutely critical*’ by Dave Allen in his evidence to the House of Lords Science and Technology Committee on 17 October.

4.12 As these figures demonstrate, EEA and non-EEA employees make up around 20% of skilled rolls in medium to large biopharmaceutical companies.

4.13 In smaller life science companies the proportion is frequently even higher; for example Immunocore report that 119 of their 419 employees (28.4%) are from the EEA with a further 13.1% from the rest of the world. Hence 41.5% of their employees are non-UK nationals. Immunocore is expanding rapidly and plans to recruit at least 50 more staff by the end of the year, mainly in scientific areas including three senior leadership roles.

- **Figure 7: Demographic breakdown for Immunocore**



4.14 Oxford BioMedica tell us that 28% of their current workforce are not British. This figure includes 23.6% who are from the EU.

4.15 Oxstem are a small, but growing spin-out company from the University of Oxford. Their management team comprises five people, one of whom is from the EU. Of their full time researchers 68% are not UK nationals (59% are from the EU, 9% are non-EU nationals).

4.16 The sudden loss of these employees and any prohibitive barriers to hiring such employees in future would have a damaging impact on the biopharmaceutical industry, and by extension the UK economy.

Recommendation: The Migration Advisory Committee should strongly advise the Government that any potential change to access for EEA nationals to work in the UK will require a significant transition period to provide stability and continuity and to ensure that the biopharmaceutical industry avoids a short term skills shortage.

- **To what extent are EEA migrants seasonal; part-time; agency-workers; temporary; short-term assignments; intra-company transfers; self-employed? What information do you have on their skill levels? To what extent do these differ from UK workers and non-EEA workers?**

4.17 In the main pharmaceutical company employees are full-time and are not on temporary or short-term contracts. Some roles, where the number of staff required can vary over time, are frequently contracted out to agencies, this may include field sales force and clinical research staff. Agency workers also perform roles which require specialist skill sets on a temporary basis, and these skills are not already available within the company employees. However the agencies are also based in the UK, and will have similar issues in recruitment and retention to the companies described above.

Agency staff suppliers report that roles which are challenging to fill include: analytical chemists, clinical operations, formulation chemists, molecular biologists, regulatory affairs roles and synthetic chemists.

4.18 UK biopharmaceutical companies typically have a number of employees on intra-company transfer visas (ICTs). The research and development functions within these companies often work in collaboration with a high number of academic researchers and hospital clinicians across the world.

Intra-company transfer visas (ICTs)

4.19 Tier 2 intra-company transfer visas (ICTs) are part of the reason for the UK's success in life sciences. They enable skilled roles be filled by talented employees, facilitate collaboration and innovation through secondments and projects, and encourage talent development through the cross-fertilisation of skills across countries. All of this contributes to incentives for biopharmaceutical companies to maintain their European headquarters in the UK and any reduction in the availability of or increase in the cost of such ICTs and free movement puts this at risk.

Company 3 report that they have nine people on international assignment in the UK for periods of two to three years; and approximately 40 ICTs working in the UK on a permanent basis. Together these comprise 6.5% of the total UK workforce. Short term requirements are met by recruitment of agency/temporary workers. As of 4th September the company had 45 such workers on their capability site, the majority being from the EEA.

Currently AstraZeneca has 71 assignees hosted in the UK in a variety of roles from Senior Executives to members of their graduate scheme. Of this number, 18 are from EU countries, with the balance from ROW, representing 23 countries in total.

At the same time, there are 64 employees assigned from the UK of which 28 are located in European countries and a further 36 in ROW locations, a total of 20 country destinations.

4.20 To support global life science companies in the UK we recommend that quotas for ICT visas for non-EU citizens should not be imposed.

Academic researchers and PHD students

4.21 In 2014, pharmaceutical companies invested 16% of their European R&D budget in the UK. This compared with 9.4 per cent of European sales in the UK¹⁶. This is in part due to the UK's outstanding universities and research institutions, with which the UK life sciences industry collaborates widely.

4.22 EEA and non-EEA researchers and PhD students in the UK play a vital role in continually refreshing the UK's research base, and in maintaining and developing the UK's position as a world-

¹⁶ European Federation of Pharmaceutical Industries and Associations, "The Pharmaceutical Industry in Figures: Key Data 2016", pp. 7, 15. The size of the UK pharmaceutical market is based on sales at ex-factory prices in 2014

4.23 Moreover, a higher proportion of overseas academics at UK universities are leading experts in STEM subjects than average, meaning the life sciences industry benefits even more than other fields from the diversity of the UK's academic community.¹⁹

4.24 Across the Russell Group 22 per cent of academics are EU nationals. However, there are a higher number in disciplines which support our leading life sciences industry as EU nationals make up:

- 31 per cent of maths academics
- 28 per cent of chemical engineering academics
- 26 per cent of biosciences academics
- 25 per cent of chemistry academics

4.25 The picture for students is similar, especially when looking at postgraduate research (PGR) level, where EU nationals make up 16 per cent of PGR students overall, including:

- 27 per cent of mathematical science students
- 19 per cent of physical sciences students
- 16 per cent of biological sciences students

4.26 The life sciences sector is therefore even more dependent on a diverse group of employees and students than other fields to maintain and develop our position as a world-leading research nation.

Recommendation: The Committee should advise the Government that is crucial to the future success of the life sciences industry that there should be no reduction in the ability for companies to use Tier 2 intra-company transfer visas (ICTs). There should be no increase in the cost of applying for Tier 2 ICTs. Two additional measures should be proposed:

- Increasing the number of visa allocations to bring key talent to the UK from both within and outside the EEA;
- Remove quotas for ICT visas for non-UK citizens on assignments less than 12 months in duration.

Recommendation: The UK should also seek to ensure mutual recognition of professional qualifications gained within the EU (for example for clinicians, pharmacists and Qualified Persons (QPs)).

Recommendation: Remove international students from net migration figure targets, and develop an immigration system which facilitates ease of movement for talented students and researchers as well as employees.

- **Are there any relevant sources of evidence, beyond the usual range of official statistics, that would allow the MAC to get a more detailed view of the current patterns of EEA migration, especially over the last year?**

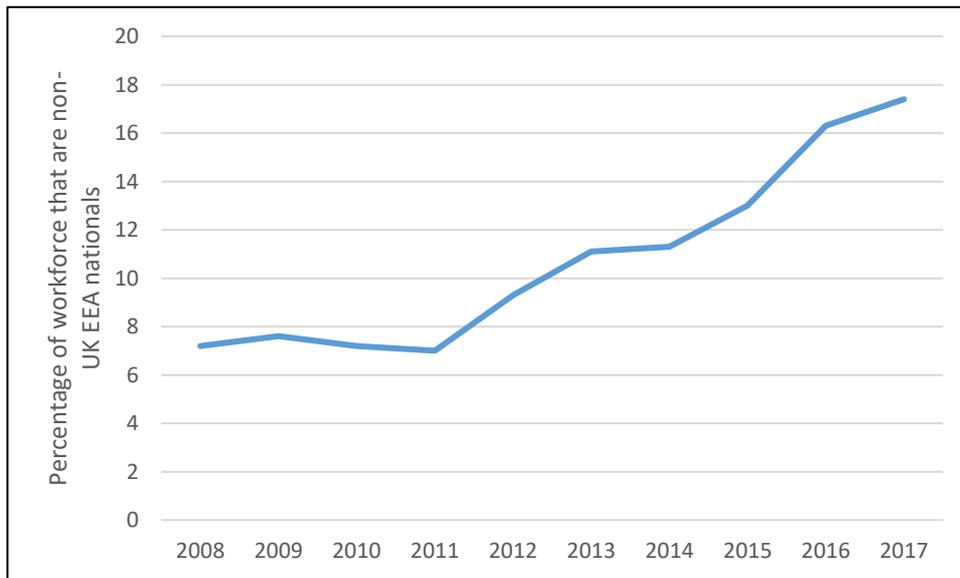
4.27 The ABPI collects data on the skills gap in the biopharmaceutical sector regularly by surveying industry. Our next report is planned for 2018 and will look at the comparative difficulty of recruitment of people with the skills needed in 2018 in comparison with 2014/15.

¹⁹ Russell Group evidence to the Home Affairs Select Committee immigration inquiry, <https://russellgroup.ac.uk/media/5463/home-affairs-select-committee-response-on-immigration-inquiry.pdf>

- **Have the patterns of EEA migration changed over time? What evidence do you have showing your employment of EEA migrants since 2000? And after the Brexit referendum? Are these trends different for UK workers and non-EEA workers?**

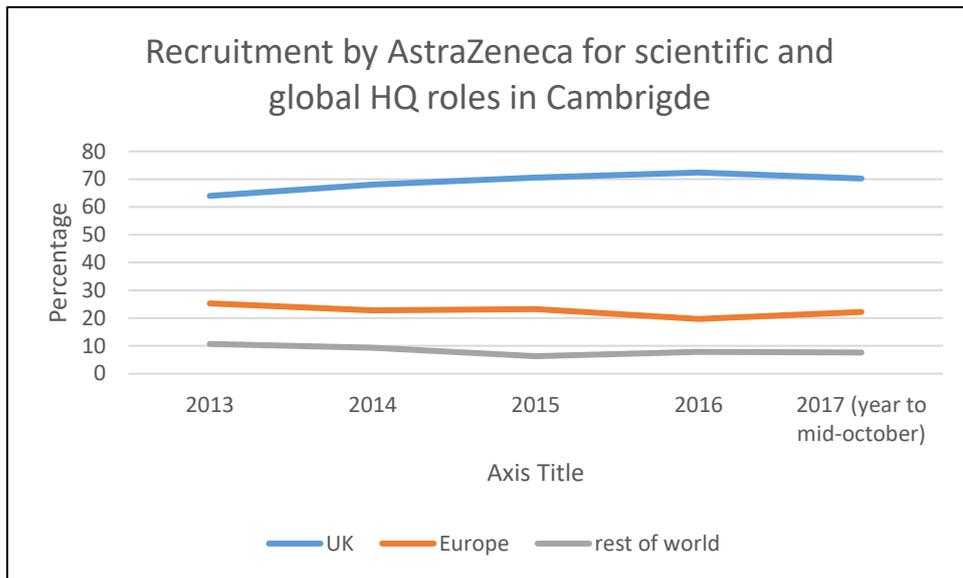
4.28 Data on changes in employment of EEA migrants has proved challenging to obtain from our members. The chart below is based on data from UCB, who have a significant presence in the UK with both R&D and other functions based in Slough.

- **Figure 8: Percentage of the UCB workforce that are non-UK EEA nationals from 2008 to end Q3 2017**



4.29 AstraZeneca have shared data on number of new hires in the UK since 2013 when they commenced their relocation of scientific and global HQ roles to Cambridge. A higher proportion of new hires at the Cambridge sites, an average of nearly 30%, have been from Europe and the rest of the world since 2013. Overall the proportion of new hires from Europe and the rest of the world during this period peaked at 20.5% in 2015; in 2016 it was just under 20% and this has dropped further to 18.5% so far in 2017.

- **Figure 9: Recruitment by AstraZeneca for scientific and global HQ roles in Cambridge**



4.30 Companies in the life sciences industry are reporting anecdotally that non-UK nationals in their work force are less certain they want to stay in the UK since the EU referendum vote and that job applications from non-UK nationals are in decline. This is often for two reasons – that their immigration status is less certain, and a feeling that they are less welcome in the UK as foreigners that they were previously.

Gilead reports that they are already experiencing difficulty in attracting both internal and external talent to the UK due to the uncertainty caused by Brexit and that this also has the potential to impact on engagement of the proportion of their workforce that are non-UK EU citizens already based at their sites.

“We strive to attract and retain a diverse workforce, particularly in our international headquarters in Uxbridge, as we feel this enables us to best serve our markets across the EU. If the post-Brexit immigration policy impedes recruitment and retention of this diverse international workforce we may need to consider different operating models going forwards.

The drop in the value of the pound since the referendum has provided challenges in terms of our ability to offer competitive salaries to internal candidates from elsewhere in the EU looking to take up a role in the UK. If the value of the pound does not recover it has the potential to undermine our career development model/philosophy which involves movement in and out of our international headquarters.”

In oral evidence to the House of Lords Scientific Committee on 17 October, Mene Pangalos, Executive Vice-President of AstraZeneca's Innovative Medicines and Early Development Biotech Unit and Business Development, commented:

"We're starting to see people turn us down now in the UK because they don't know what the outcome will be in terms of future employment," he said. "They haven't got that certainty so they say, until they have got it, we'd rather go and work somewhere else."

4.31 UCAS reports a similar trend in applications to universities, with applications from EU students to 'early deadline' universities and courses falling by 9 per cent in 2016, ending a trend of annual increases for a number of years.²⁰ The UCAS figures do not poll the reasons why applications declined, but it is a worrying sign for an industry highly dependent on the supply of highly skilled STEM graduates.

- **Have you conducted any analysis on the future trends of EEA migration, in particular in the absence of immigration controls?**

4.32 The ABPI collects data on the skills gap in the biopharmaceutical sector regularly by surveying industry. Our next report is planned for 2018 and will look at the comparative difficulty of recruitment of people with the skills needed in 2018 in comparison with 2014/15.

- **Have you made any assessment of the impact of a possible reduction in the availability of EEA migrants (whether occurring naturally or through policy) as part of your workforce? What impact would a reduction in EEA migration have on your sector/local area/region? How will your business/sector/area/region cope? Would the impacts be different if reductions in migration took place amongst non-EEA migrants? Have you made any contingency plans?**

4.33 Following the referendum vote on June 23 2016, at the request of Government, the UK life science sector set up the UK EU Life Sciences Steering Group to produce a report on how to maintain and grow the UK's world leading Life Sciences sector following the UK's departure from the EU.²¹ The ABPI and BIA are key members of the Steering Group. One of the four key areas industry identified was ensuring continued access to the best talent, for the following reasons:

4.33.1 As set out above, ease of movement across the EU enables the sector to attract the talent it needs. This is particularly crucial in skills gap areas such as clinical pharmacology and bioinformatics. In the future, the ability to attract top talent will be critical if the UK is to become a leader in emerging skills areas (e.g. device technologies, digital health, physiological modelling, genomics and ATMP manufacturing). Being able to attract the top students from around the world is vital to ensure UK research institutions remain world class.

4.33.2 Barriers to attracting and retaining the right talent pose a fundamental risk to the UK's position as a world-leading Life Sciences environment, putting the entire Life Sciences

²⁰ <https://www.ucas.com/corporate/news-and-key-documents/news/applicant-numbers-per-centE2-per-cent80-per-cent98early-deadline-per-centE2-per-cent80-per-cent99-university-courses-increase>

²¹ UK EU Life Sciences Transition Programme Report, for the UK EU Life Sciences Steering Committee, "Maintaining and growing the UK's world leading Life Sciences sector in the context of leaving the EU", (September 2016). Available from: <http://www.abpi.org.uk/our-work/library/industry/Documents/UK-EU-Steering-Group-Report.pdf>

ecosystem in the UK at risk and ultimately risking long-term erosion of the UK science base. Currently, non-UK EU nationals make up around 17 per cent of Science, Technology, Engineering and Mathematics (STEM) academics at UK research institutions²⁶.

- 4.33.3 Uncertainty over the position of EU workers to remain in the UK and the UK's future immigration policy is already making it difficult to attract and retain talent²². Additionally, it is creating the negative impression that the UK is closed to foreign workers, making it harder to market the country as an attractive destination for the talent essential to the industry.
- 4.33.4 The UK is often the European HQ location of choice for global biopharmaceutical companies, with over a dozen based in the UK including Allergan, Eisai, Gilead, Otsuka, Takeda and Vertex. GSK and AstraZeneca also have their global HQ's in the UK. Other companies, including Amgen, BMS, Lilly, MSD, UCB and Pfizer also have significant UK R&D or manufacturing operations. The UK is also home to some of the most exciting and rapidly growing companies in the world such as Immunocore and Oxford BioMedica, and is leading the way in areas such as cell and gene therapy and genomics. This has helped foster a deep talent base across the value chain in areas including research, development, regulatory, manufacturing and commercial skills. These skills find homes within a range of organisations in the UK Life Sciences sector including regulators, industry, research institutes and support services. However, as the UK's position as an attractive gateway to Europe is challenged, there is a risk that these operations will move to Europe – eroding the UK Life Sciences ecosystem and resulting in lost jobs and economic contributions.

Company 3 tell us that the impact of a reduction in the ability to recruit from the EEA would be detrimental to the sustainability of 'site 1' at that location.

'Non-EEA migrants are fundamental to this site because of Middle East and Russian language requirements. Contingency plans are being considered for the future of this centre.'

A number of senior leadership roles within the company in the UK are also held by EEA nationals. EEA and non-EEA workers bring skills and diversity to the workforce at all levels, and the opportunity for these people to come to the UK, and for UK nationals to work in other countries, provides career development opportunities for individuals.

GlaxoSmithKline tell us that the ability to recruit EEA nationals to work in the UK is key for certain projects.

'We place projects where there is existing talent and capability and where there is sufficient flexibility to bring in the right people to do the work. Many projects in our sector are global and collaborative.'

- 4.34 Biopharmaceutical companies value top talent in leadership roles with international experience. Hence senior managers are frequently rotated between markets in order to share best practice, innovations and knowledge and to gain skills and experience which is invaluable to the sector.
- 4.35 For biotech companies funding often comes with the need to recruit a highly specialised scientist/researcher. In many areas of biotech the pool of these individuals is globally very small.

²² FT, "Brexit: An experiment full of risk for British science", 23/08/16

Being unable to recruit will impact their ability to receive funding and therefore develop as a business.

4.36 The ABPI collects data on the skills gaps in the biopharmaceutical sector regularly by surveying industry. Our next report is planned for 2018 and will look at the comparative difficulty of recruitment of people with the skills needed in 2018 in comparison with 2014/15.

Recommendation: As the UK establishes a new immigration system after the UK leaves the EU, the Government should review the current immigration system in broad terms, simplifying the processes that allow companies to recruit talent from across the globe. The Committee should seek to recommend an immigration system which:

- Facilitates ease of movement for talented/skilled students, researchers and workers;
- Is employer and needs-based;
- Is straightforward and rapid to administer;
- Avoids additional costs to industry;
- Provides certainty of outcome for both applicants and the company wishing to employ them;
- Has a reciprocal agreement with Europe whilst also improving the current system for immigration from the rest of the world;
- Continues the intra-company transfer process to facilitate movement into the UK of people employed overseas by biopharmaceutical companies and for UK nationals to spend time in other company sites in Europe and beyond;
- Gives the option of issuing time-limited visas which allow international secondees, from the EEA and the rest of the world, to work in the UK for a limited period of time in order to support personal development and ensure the most appropriate and qualified talent supports various project-based work.
- Guarantees the rights of scientists, researchers and highly-skilled EU citizens already in the UK, alongside securing the rights of UK citizens working and operating in the EU.

Proposal: An Investor Visa Fund

4.37 A currently untapped source of capital for innovative growth companies is high-net worth individuals coming to live in the UK. The Tier 1 (Investor) visa is available to individuals who are able to invest £2,000,000 in the UK by way of UK Government bonds, share capital or loan capital in active and trading UK registered companies²³. The nature of this investment means it is highly likely to go into the lowest-risk assets possible.

4.38 The BIA proposes a rule determining that 10% of this investment should be in high-risk ventures in UK innovative businesses. This will refine the visa policies to support economic activity in line with the government's industrial strategy approach. It would also introduce investors to sectors they would otherwise not consider, potentially creating a virtuous cycle of investment.

4.39 Taking the average combined amount invested by Tier 1 (Investor) visa holders from 2011-2015²⁴, it is estimated that this policy could raise £100 million annually for investment into innovative businesses (based on the 10% rate proposed). The UK investor visa scheme also allows settlement sooner if users invest greater sums, meaning the policy could raise more than this.

²³ Home Office (2016), *Tier 1 (investor) visa guidance*,: <https://goo.gl/VAZidT>

²⁴ Home Office (2016) *Immigration statistics, January to March 2016*: <https://goo.gl/bLxOKx>

5. Recruitment Practices, Training & Skills

- **Please provide evidence on the methods of recruitment used to employ EEA migrants. Do these methods differ from those used to employ UK and non-EEA workers? What impact does this have on UK workers? Have these methods changed following the Brexit referendum? Do recruitment practices differ by skill-type and occupation?**

5.1 Roles are often advertised globally, particularly for niche and complex areas where skills are in short supply. This included many of the areas highlighted by the ABPI in our 2015 Skills report²⁵. Examples include:

- Health economics and outcomes research
- Bioinformatics
- Statistics
- Data mining
- Clinical pharmacology
- Genetics

5.2 No differences in the methods used for recruitment inside or outside of the UK have been reported to us. Some companies seek to recruit from the UK and from the EEA before looking further afield. This is due to the fact that the current process for sponsoring non-EEA migrants on Tier 2 (General) visas is lengthy and expensive for employers.

5.3 The Tier 2 (General) visa system could be improved by implementing the following changes:

- Make the process for seeking additional certificates of sponsorship more flexible to allow for key talent hires, as well as streamlined to increase efficiency. The current approach is lengthy and expensive for employers.
- Reviewing the shortage occupation list annually, as opposed to the current intermittent partial reviews. This could include identifying emerging job needs, avoiding gaps in the labour market, which could have a material impact on business. Reviews should be undertaken with the input and assistance of industry leaders and academic groups and roles should be added where the need is for small numbers of people with skills that are business critical, as well as for roles where large numbers of migrants are needed.

5.4 We have been told by member companies that employees also have concerns around spouses and families and their ability to work and future prospects. The family is a critical component of a move and it is essential that family members are supported through the process and given the right to work. To move to a new country to take up work is a family decision and it is imperative that the UK is open and welcoming. Any additional restrictions on the right to work for spouses would further disadvantage the UK in recruiting the most talented people to fill key roles.

5.5 Several of our members have emphasised that the key consideration is finding the best candidate available at that time for the role. Where a promising candidate does not have the right to work in the UK the business evaluates the options to support a visa application. Many of our member companies are licenced sponsors.

- **What are the advantages and disadvantages of employing EEA workers? Have these changed following the Brexit referendum result?**

²⁵ http://www.abpi.org.uk/our-work/library/industry/Documents/Skills_Gap_Industry.pdf

5.6 As set out above, the life sciences industry and universities employ and recruit EEA workers to fill skills gaps in the UK. As with ICTs, employing EEA workers enables skilled roles be filled by talented employees, facilitates collaboration and innovation through secondments and projects, and encourages talent development through the cross-fertilisation of skills across countries.

5.7 Many UK biopharmaceutical companies are heavily involved in collaborative research with other EU companies and universities through participation in Horizon 2020 projects such as the Innovative Medicines Initiative (IMI). Employment of EEA nationals at the UK sites of these companies helps to build connections and collaborative working across countries.

Company 3 has told us that employing EEA workers is the crux of the success of 'site 1' in the north-west of England.

'The hub was initiated in 2014 and since then we have taken on almost 350 employees from around Europe and elsewhere. Language skills have been fundamental to the success of the centre, creating opportunities and leveraging a vast knowledge base in Finance, IT and HR.'

GSK tell us that EEA nationals make a considerable and valued contribution to the company, comprising approximately 10% of their UK workforce and performing key roles within the company. *'The majority of the roles are highly skilled and require qualification to degree level and beyond. The benefits of EEA nationals also bring include language skills and sharing cultural knowledge. The types of roles are in a broad range of disciplines and range from entry level graduate roles to Senior Management level.'*

5.8 Recruiting EEA workers over non-EEA workers is currently less complicated and bureaucratic than recruitment of people from outside of the EEA. This is particularly important for SMEs who have less time, expertise and funding to process applications. Further limiting their ability to recruit internationally risks stifling innovation and growth. The current Tier 2 visa application is bureaucratic and overly specific and costly. The life sciences industry would be extremely concerned if this was applied to EEA hires as it would cause delays and uncertainty in recruitment, cause delays to projects and hence stifle innovation.

Recommendation: The Committee should advise the Government to do more to convey a positive narrative around the value of immigration. Ministerial speeches and documents should build political and public support for the employer led system for highly skilled talent in this sector.

- **To what extent has EEA and non-EEA migration affected the skills and training of the UK workers?**

5.9 To the best of our knowledge the EEA and non-EEA migration has not adversely affected the skills and training of the UK workers. Companies working in the biopharmaceutical sector employ people of many nationalities, but on all cases which we are aware of, the largest proportion of employees are UK nationals. Data companies have shared with us indicates that the proportion of UK nationals ranges from just under 60% to over 80%.

5.10 UK workers have benefitted from the presence of EEA and non-EEA migration, providing diverse opportunities for working with talented and skilled people.

5.11 The UK's position as a leader in Life Sciences is underpinned by the ability to attract, develop and retain a highly skilled workforce. A key feature of this has been the ability for talented people to move and collaborate freely, through secondments and projects, and encourage talent development through the cross-fertilisation of skills across countries. This includes UK nationals spending time overseas as well as people from the EU and elsewhere spending time in the UK – this brain circulation is critical for developing the next generation of innovators and businesses talent.

5.12 The UK's leading institutions attract the brightest students from around the world. This talent pool provides the fuel for UK start-ups. Big pharma are drawn to this combination of a thriving start-up ecosystem and skilled workforce - one reason that the UK currently "punches above its weight" as a base for global pharma companies within Europe. In a virtuous cycle, this further drives the UK's highly-skilled Life Sciences talent base. The next wave of medical innovation will create new, highly skilled roles across the value chain, from R&D to advanced manufacturing. Taking advantage of this opportunity places a renewed imperative on developing the UK talent pipeline for the skills of the future. However, there will always be a need to access talent from abroad. The inability to do this would be a fundamental challenge to the UK's position as a world-leading Life Sciences environment, ultimately risking the long term erosion of the UK science base. Uncertainty is already making it difficult to attract and retain talent, partly by creating a negative impression that the UK is closed to international workers. The right agreement on migration is critical.

5.13 The UK life science sector has not routinely trained large numbers of people through apprenticeships, however recently a number of new Apprenticeship Standards have become available and more are in development. These cover key areas of need for the sector at all levels, and will enable more UK workers to develop the appropriate skills for roles in the biopharmaceutical sector. We hope that in the longer term these will help to address some of the areas where companies have included recruitment from EEA and non-EEA countries to meet their needs. Examples include Regulatory Scientist and Clinical Development Specialist and apprenticeships for other key areas of need such as data science and bioinformatics. Although apprenticeships in manufacturing and engineering are more established, a number of companies, including Oxford BioMedica, are involved in the development of a new apprenticeship to provide appropriate skills for the manufacture of advanced therapy medicinal products (ATMPs).

GSK tell us that their apprenticeship programme takes in on average 70 apprentices per year in the UK, onto a broad range of programmes across various sites. They currently have apprentices studying at advanced, higher and degree level.

5.14 Biopharmaceutical companies also provide high quality work experience opportunities to school and college students and longer term work placements to undergraduate students and graduates. ABPI collects data on the number of such placements every two years. The most recent data, from December 2015²⁶, indicates that ABPI member companies supported:

- 603 undergraduate placements – the majority of one year duration
- 552 sponsored PhD students

²⁶ <http://www.abpi.org.uk/our-work/library/industry/Documents/Developing-talent-and-partnerships-to-create-new-medicines.pdf>

How involved are universities and training providers in ensuring that the UK workforce has the skills needed to fill key roles/roles in high demand in your sector? Do you have plans to increase this involvement in the future?

5.15 The universities and the life sciences industry have a long history of working together to address skills gaps in the UK.

5.16 For example, animal research/in vivo areas were one of the top priorities highlighted by industry in the 2008 ABPI skills gap survey. In response, new university courses were created and the Integrative Pharmacology Fund (IPF) was set up to support in vivo research and training at UK universities, as well as other training opportunities. Evidence shows this worked – a recent evaluation by the British Pharmacological Society on the IPF concluded that the initiative ‘successfully increased the capacity of in vivo education, training and research in academic institutions, at least partially off-setting projected losses due to retirement’.²⁷

5.17 However, in some instances skills gaps are growing rather than shrinking. Data mining, for example, was not rated in the 2008 ABPI survey but became a high priority in the 2015 survey, despite universities having introduced a number of postgraduate courses to help address this skills need. As a result, some biopharmaceutical and healthcare companies find they need to recruit data analysts from other industries and countries to fill the gap, illustrating the importance of both developing skills in the UK and allowing access to EEA and non-EEA employees with the right skills.

5.18 This also applies to other areas where there is a shortage of appropriately skilled graduates.

For example GSK tell us that where they are seeking to recruit specific degree disciplines such as Engineering and specialist science subjects, they find it challenging to recruit the number of graduates needed. They cite the following disciplines as challenging to fill: automation engineering, electrical engineering, biopharmaceutical engineering, material sciences, and colloidal sciences and expect the demand for such graduates to grow in future.

5.19 As described above, apprenticeships are expected to play an increasing role in meeting the skills needs of the sector. Many of the apprenticeships under development are at degree level (Levels 6 and 7); universities will provide much of the education and training for these degree level apprenticeships.

- **How well aware are you of current UK migration policies for non-EEA migrants? If new immigration policies restrict the numbers of low-skilled migrants who can come to work in the UK, which forms of migration into low-skilled work should be prioritised? For example, the current shortage occupation list applies to high skilled occupations; do you think this should be expanded to cover lower skill levels?**

5.20 Many of our members are A-rated sponsors and so are fully aware of the migration policies and their obligations as an employer to fully comply with immigration rules in the UK for non-EEA migrants.

²⁷ British Pharmacological Society, Lowe JWE, Collis M, Davies G, Leonelli S, Lewis DI and Zecharia AY, “An evaluation of the Integrative Pharmacology Fund: Lessons for the future of in vivo education and training”, (2016). Available from: www.bps.ac.uk/futurein vivo

- 5.21 Our sector recruits highly skilled, motivated and talented people with the right skills and knowledge to help us tackle some of the world’s most important health challenges. Regardless of how strong the UK domestic talent market becomes, it will always be essential to include international talent in our medium and long term talent plans.
- 5.22 Movement of high skilled personnel is critical to our business success.
- 5.23 UK life sciences companies are led by talented and experienced management teams. However, there is a shallow pool of these individuals, as recognised in Pillar 4 of the Government’s industrial strategy green paper. The reasons for this are manifold and intrinsically linked to the other Pillars of the Strategy. Talent follows money, in academia and business. Talented individuals – along with companies themselves – can migrate to the US, where funding and salaries are higher.

“We are struggling to employ the right people already to drive growth, I can’t imagine what it will be like if we end up with a hard Brexit”

CEO, health informatics biotech

- 5.24 We therefore seek an immigration system which allows the best, diverse talent to enter and remain in the UK, and facilitates its movement between the UK, the EU, and the rest of the world.
- 5.25 Our members find the Tier 2 visa system lengthy and complex – it requires the sponsoring company to demonstrate that the role cannot be done by a current UK or EEA worker. It can act as a deterrent due to the complexity of the process, resulting in companies potentially missing out on key talent. Managing the quota of allocated visas has also proven to be problematic for some companies. For example every year GSK needs to seek additional Certificates of Sponsorship over and above their allocation, which are not guaranteed to be granted. Applications must be made on an individual basis providing details of the specific need. This results in a lengthy and expensive process.
- 5.26 As well as the considerable cost, the lack of predictability with this system results in challenges regarding business planning. Decisions to use allocated Tier 2 visas, and to apply for additional ones, are not taken lightly given the time and expense required.
- 5.27 We also suggest reviewing the shortage occupation list annually, as opposed to the current intermittent partial reviews. This could include identifying emerging job needs, avoiding gaps in the labour market, which could have a material impact on business. Reviews should be undertaken with the input and assistance of industry leaders and academic groups. These stakeholders are at the forefront of the discussions around future talent requirements in their specialist areas.
- 5.28 Re-orientating the shortage occupation list around themes, as opposed to a list of specific job titles, would help to ensure the appropriate amount of flexibility for hiring companies. Priority and exemptions should be given to significant shortages which we can anticipate in our industry, such as for clinical pharmacology, health economists, engineers, a full spread of data and digital capabilities from marketing to cyber security roles and Quality Assurance specialists.

6. Economic, Social and Fiscal Impacts

- **What are the economic, social and fiscal costs and benefits of EEA migration to the UK economy? What are the impacts of EEA migrants on the labour market, prices, public services, net fiscal impacts (e.g. taxes paid by migrants; benefits they receive), productivity, investment, innovation and general competitiveness of UK industry?**

6.1 The life sciences industry is a pillar of the UK economy and any damage to the industry as a result of poorer access to international talent would have a serious impact on the UK economy.

6.2 The bioscience sector is continuing its growth and expansion in the UK, adding skilled jobs. There are a number of bioscience companies that are currently expanding in the UK, especially those undertaking R&D, and they are experiencing shortages of available talent which may impact their ability to expand. Since the referendum result, bioscience companies have continued to announce new investments in the UK. Many SME and scaling research-intensive companies have highlighted to us that the ability to continue to attract and retain talented individuals once the UK leaves the EU is a key concern for them.

Recent examples of investment and growth of some of these SME and scaling companies are given below:

September

- Oxitec new £7.3 million state- of-the-art mosquito egg production facility to be built
- Synthace raised £7.3 million in Series A funding.
- ADC Bio invests in \$11 million in a Bioconjugation facility in Deeside

August

- Consortium announces £2m project on gene and cell therapy manufacturing – led Oxford BioMedica with Cell and Gene Therapy Catapult, Stratophase and Synthace

July

- Immunocore and MEPC announce significant laboratory expansion at Milton Park
- PBL opens biologics characterisation and development site in Salisbury
- Oxford BioMedica signs supply deal with Novartis – could be worth \$100m in next 3 years

June

- Thermo Fisher opens single-use tech testing centre in Cramlington
- LifeArc invests up to £500m in next 5 years in UK academic and business sectors
- BioCity's £30 million "Discovery Building" opens in Nottingham

May

- GammaDelta Therapeutics, a company built on the research from scientists at the Francis Crick Institute and King's College London, secured £78m from Takeda to develop their novel T-cell platform
- New \$400m fund launched by SV Health Investors

April

- Expansion of process development capacity by Fujifilm Diosynth Biotech
- 6 universities announced as hosts for research centres that will form the £250m UK Dementia Research Institute
- Expansion by Cobra Biologics of UK Gene Therapy Manufacturing

6.3 Larger companies, such as Novo Nordisk²⁸, have also confirmed large scale investments in the UK since the referendum. However, some companies, including AstraZeneca, have put on hold

²⁸ <https://www.novonordisk.com/bin/getPDF.2073596.pdf>

decisions on new major manufacturing investment in the UK; others have concerns over maintaining existing projects and activities in the UK. Any reduction in the ability to recruit from the EEA and the rest of the world is likely to be detrimental to the sustainability of some facilities in the UK, and as the majority of employees in these facilities are UK nationals, this could lead to redundancies for UK nationals as well as damage to the local economy.

- 6.4 The industry supports an estimated that 482,000 jobs in the UK and has an average productivity per employee of twice the UK average - £104,000 Gross Value Added (GVA), compared to £49,000.²⁹ The UK pharmaceutical sector specifically generates exports worth £30bn and a trade surplus worth around £3bn³⁰. There are 62,000 high skill, high value jobs in the biopharmaceutical industry in the UK and with strong clusters in the South East, North West and Scotland, the sector brings economic benefits across the country.³¹ It also invests more in research and development (R&D) than any other sector in the UK, £4bn in 2015.³² As the Prime Minister, Rt. Hon. Theresa May MP, said in July 2016: *“It is hard to think of an industry of greater strategic importance to Britain than its pharmaceutical industry”*.³³
- 6.5 As set out above, reduced access to the best talent, whether UK, EEA, or non-EEA, will negatively affect the industry. This in turn is likely to negatively affect the UK economy, with the potential for companies to move jobs and even their EU headquarters to an EU member country to ensure seamless access to EU employees and institutions.

²⁹ The economic contribution of the UK Life Sciences industry, PwC. March 2017. http://www.abpi.org.uk/our-work/library/industry/Documents/The_economic_contribution_of_the_UK_Life_Sciences_industry.pdf

³⁰ Office for Life Sciences, “Overview of the Life Sciences Sector”, August 2016, p. 2.

³¹ Office for National Statistics, “JOBS03: Employee jobs by industry” (December 2016), <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/datasets/employeejobsbyindustry/obs03>

³² Office for Life Sciences, “Life Sciences Competitiveness Indicators” (May 2016), p. 25

³³ <http://press.conservatives.com/post/147947450370/we-can-make-britain-a-country-that-works-for>

- **Do these differ from the impact of non-EEA migrants?**
- **Do these impacts differ at national, regional or local level?**
- **Do these impacts vary by sector and occupation?**
- **Do these impacts vary by skill level (high-skilled, medium-skilled, and low-skilled workers)?**

We do not have any comments on the above questions.