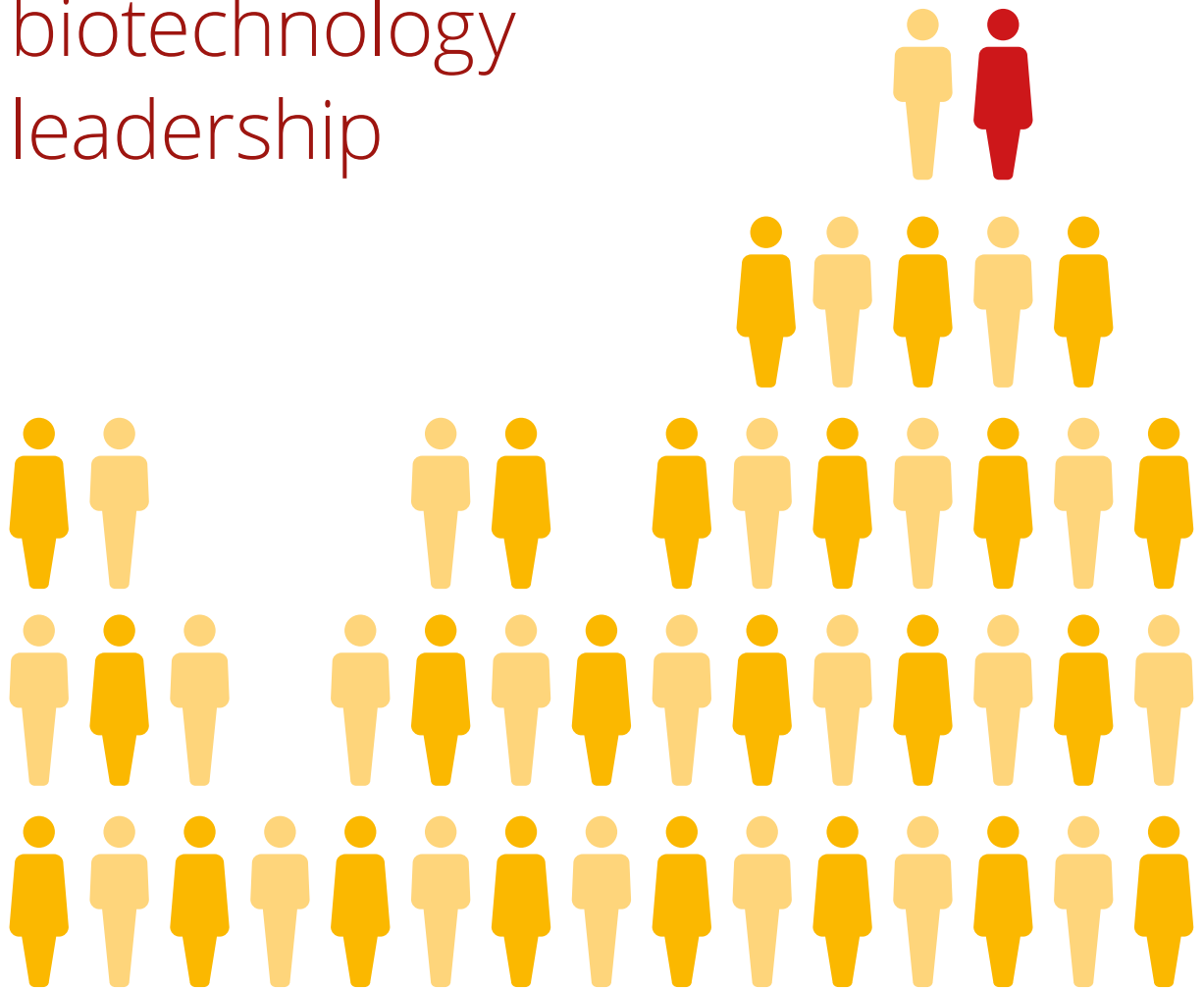


Diversifying the outlook

The **X&Y** of
biotechnology
leadership



Knowledge at the heart
of leadership

Analysis into gender
diversity in biotechnology
executive leadership across
European and US markets



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Foreword

The biotechnology industry continues to grow and evolve, developing innovative approaches to tackle complex diseases. Collaboration and partnership are increasingly prominent features of the biotech landscape; with companies, academia, investors and patients working together in a system of open innovation. Accordingly, leadership must adapt to most effectively utilise the wealth of available resources, opportunities and talent.



Greater diversity in leadership is a key factor of this developing ecosystem. By working in diverse teams we make better decisions individually and collectively, teams work more efficiently and think more creatively to find solutions. Diverse teams also reflect a company's customer base more accurately, even in healthcare with its complex global environment of decision makers and payers. Moreover, if we can create an environment in which the very best people rise to the top, then we are not only accessing a greater talent pool but also taking a more meritocratic approach to developing leaders. Women are presently a 'minority' in leadership but a majority in the highly skilled workforce entering biopharma, and as such, are a major component of underdeveloped potential. Today, the industry underutilises the wealth of knowledge, experience and leadership offered by women.

Many mistake the issue of gender diversity as one for women alone. Both men and women contribute to the current inequality in the leadership pipeline. Both men and women are needed to enable change and both men and women contribute to diversity of thought and background leading to better business decisions. There are already many incredible women leaders in our industry, driving the delivery of new therapies to patients and returning value for shareholders. Our responsibility, in keeping with the collaborative philosophy, is to build upon these early foundations with increasing impatience and look beyond gender bias to capture the very best of leadership talent.

A handwritten signature in blue ink, reading 'Stefan Oschmann'.

Stefan Oschmann
CEO Pharma, Merck

Executive summary

Gender diversity is now considered at senior management and boardroom level by many large corporates thanks to an increase, in recent years, of research findings that positively state the business case for such a move. While this is an essential step, scant attention has been paid to small and medium-sized enterprises (SMEs), by far the biggest employers, and fundamentally different in their structure, business model and cadence.

Biotech is a sector with a unique combination of defining characteristics; it is high risk, featuring a number of critical binary inflexion points; it is a sector with unparalleled product life-cycle length, where development costs are high; and accordingly, early stage companies are constantly in pursuit of financing. The sector has a highly trained and educated work force, as well as a range of different ‘customers’- presenting a plethora of challenges for a company bringing products to market. It also interacts with pharma, academia and the investor community through human capital, finance and technology. These characteristics influence the leadership landscape and thus, the consideration of gender diversity in leadership must be set in the context of the sector. This research set out to bring the topic of gender diversity to the biotech community, to facilitate a discussion that is data-driven and focused on delivering practical outcomes.

Analysis of 1,491 companies within Europe and the US (focused on Massachusetts and California) demonstrates that biotech leadership is still heavily male-dominated. The main data points are summarised below.

LEADERSHIP SEGMENT	GENDER DIVERSITY
Biotech SMEs: Boardrooms in Europe	All male: 59.9%
Biotech SMEs: Boardrooms in the US	All male: 52.0%
Biotech SMEs: Directors – Europe	Female: 11.2%
Biotech SMEs: Directors – US	Female: 9.7%
Biotech SMEs: Leadership team – Europe	Female: 21.7%
Biotech SMEs: Leadership – US	Female: 20.9%
Big Biotech: Directors Team	Female: 19.2%
Big Biotech: Leadership team	Female: 13.9%
Venture capital – traditional	Female partners: 9.6%
Venture capital – corporate	Female partners: 18.1%

Our research indicated that contributing factors for the low number of women in leadership positions included: 1) The talent pool that feeds the leadership tier has a low proportion of women, 2) Women are not being selected for leadership positions, and 3) Women are turning down opportunities to move into top level management. All three factors appear to be contributing to the lack of gender diversity in biotech leadership.

‘The ‘talent pool’ is hard to define and quantify, in particular because of the number of complex variables relevant to any given executive or board level position within biotech. The combination of qualities required for leadership positions are highly specific because functional, technological, indication, sector and company phase experience are all necessary. Another priority for biotech executives and venture capitalists is to employ those with a proven ‘track record’ – this has a significant impact on the rate at which the leadership pool fills and so limits change. While the ‘talent pool’ maybe hard to define, what is clear is that there are a large number of highly qualified and highly skilled women actively seeking leadership positions, as well as an increasing number of female leaders that have pushed to the top. There is however, still a relatively low proportion of female CEOs and this impacts upon the number of women being recruited to non-executive director positions. This in turn enhances perceptions of the talent pool as limited and affects the ability of today’s decision makers to look for and identify candidates. This is further influenced by the lens through which leaders are looking for potential candidates including the profile that is sought and the selection process itself. Other factors, such as the low proportion of women accessing mentorship opportunities, means that male talent is being developed ahead of equivalent female talent, and in doing so, creates a segment of the talent pool that is more leadership ready. The availability of female talent, and gender-skew of the talent pipeline with increasing seniority, is a consideration for the sector. What is clear though is that the ‘talent pool’ is not the stand alone, or most significant factor, in limiting the proportion of women in leadership.

Opportunities for women to move into leadership positions are not materialising as frequently as they are for men: C-suite women are much less likely to be contacted for a potential board position than C-suite men. Two influencing factors here are the lack of structure in the recruitment and promotion practises of a large number of biotech SMEs (which frequently results in appointments from within the immediate network of today’s leaders) as well as the influence of unconscious bias. Unconscious or unintentional bias is shared by both men and women. Awareness of bias, however it is termed, is low amongst today’s biotech leaders, despite the existence of established processes and tools for reducing such unconscious prejudices in our decision making. The onus is on individual leaders to question their approach to the hiring process and to put in place processes to minimize unconscious bias.

Our research did find that in some instances women are turning down leadership opportunities and that they do so more frequently than men. But, our study also found that it is not the case that women and men are unequally ambitious when it comes to gaining a seat at the boardroom table: the notion that women lack the ambition of their male counterparts is outdated and false. Caring responsibilities, outside of the workplace, remain more of a deterrent for women who might be seeking such positions than their male equivalents; however, a larger factor affecting a woman’s decision to turn down board positions is the current biotech leadership environment, its setting and culture – which continues to ensure a male-dominated leadership team. Venture Capital positions, our interviewees repeatedly suggest, are less attractive as a career move, for women than men. These observations, made by many of our interviewees and survey respondents, tap into a perception of the sector as uncondusive to increasing female leadership.

A number of biopharma companies stand out in their approach to addressing the leadership gender imbalance: this report highlights a range of initiatives from Merck, Biogen Idec, Cubist, Johnson & Johnson and Sanofi. Such examples of highly successful businesses prioritising diversity are immensely valuable in driving greater gender diversity within the sector as a whole. There is a high level of support across the sector for this topic which needs to be captured and coordinated. Action from a range of stakeholder groups including, most critically: CEOs/chairs, the investor community,

recruiters and high potential women themselves, is required to enact change. A number of practical, achievable recommendations will be made in section 5.2 for each stakeholder group as a result of the main research findings. These recommendations, while specific in nature, broadly serve three main purposes: to bring structure, transparency and more in depth analysis to the hiring and promotion process; to build the supportive frameworks required to move away from the *status quo*; and, to raise the profile of gender diversity so as to create movement. The objective is simple: create diverse leadership teams and allow the sector to thrive.

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Interview contributors

The following leaders from biotech, pharma and the investor community generously contributed to this research through one-to-one interviews. We thank them for sharing their perspectives.

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Kate Bingham	Managing Partner	SV Life Sciences
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Melanie Lee	CEO	NightstaRx
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Nola Masterson	Chair	Repros Therapeutics
Pascale Witz	EVP Global Divisions and Strategic Development	Sanofi
Peter Llewellyn-Davies	CFO	Medigene
Rachel King	CEO	GlycoMimetics
Rene Russo	VP Global Medical Affairs	Cubist
Richard Barker	Non-executive Director	Celgene
Robin Washington	CFO	Gilead
Russell Greig	President; Non-executive Director	Greig Biotechnology Global Consulting; Ablynx
Sandra Glucksmann	COO	Editas Medicine
Sarah Howell	COO	Arecor
Stephen Bunting	Managing Partner	Abingworth
Torbjörn Bjerke	CEO (formerly)	Karolinska Development
Vanessa Malier	Partner	Kurma Partners
Vicky Sato	Professor of Management	Harvard Business School

The majority of individuals named above hold numerous leadership and board positions in addition to the roles indicated.

1

INTRODUCTION

#biotechXY



1.0 Introduction

1.1 Motivations behind this research

In addressing questions of gender equality in leadership, commonly people refer to the priority of appointing the 'best person', regardless of gender. The desire for diversity in all aspects of leadership is in fact about achieving this outcome. Leaders should be appointed on merit and the process by which they're identified and appointed needs to be gender-neutral. To ignore, or pay cursory attention to gender diversity in biotech will only continue to negatively influence the talent pipeline and lead to sub-optimal choices.

The demand for biotech executive and boardroom talent continues to rise. Growing, attracting and retaining C-level talent is a major challenge, amplified in a sector that is highly fragmented. Leaders must be open to, aware of, and proactively maximising the potential of the entire talent pool. Women make up a significant portion of this talent pool and their potential is waiting to be fully realised. Beyond more effective utilisation of the talent pool, the drivers for increasing gender diversity are well rehearsed. Diversity enables teams to make better decisions by incorporating a broader range of perspectives, skills and experiences; diverse teams are also more reflective of the customer base and are thus more in tune with factors that impact on purchasing and usage behaviours. Data has frequently shown that when measures are taken to promote greater gender diversity, cultural diversity also increases.

The ability and performance of a leadership team and a board is a sum of its members: diversity simply makes sense. Increasing gender diversity is not about inverting the demographic of today's leadership in favour of women but about establishing balanced management enabling companies to flourish. Financial expertise is a valued and highly prized skill in biotech leadership, for good reasons, but we wouldn't choose to have a leadership team composed purely of accountants. The need for leaders with a breadth of functional capabilities and experiences is clear: scientific, medical, business, finance, strategy, and commercial capabilities are all required for the building of a successful biotech. The same is true of capabilities that are less tangible but nevertheless still play a vital role.

The motivations for this research were three fold: to raise awareness of the gender diversity topic in a way that is relevant to biotech professionals; to survey the landscape of the sector, thus facilitating a conversation informed by data; and, to bring the voice of the sector to the forefront of discussion – understanding what today's influencers believe. The ambition was to develop practicable recommendations relevant and suitable for the sector, and to identify stakeholder groups best positioned to facilitate change. To our knowledge this is the first analysis of its kind: sector-specific, in-depth, and with a geographical reach encompassing Europe and the US. The research has utilised a range of data sources, quantitative and qualitative, and has placed the results within the context of the unique characteristics of biotech.



**WOMEN MAKE UP A
SIGNIFICANT PORTION
OF THIS TALENT POOL
AND THEIR POTENTIAL
IS WAITING TO BE
FULLY REALISED**

1.2 Nuances of the biotech sector

Box 1 / Unique characteristics of the biotech sector

- Short funding cycles and capital intensive
- Long development life cycles
- High risk (binary points at IND, phased I to III and reimbursement)
- High level of education, high complexity of skills
- High geographical concentration in clusters but global talent market
- Number of different 'customers' – payers, regulators etc.
- High number of SMEs (small and medium sized enterprises)
- Low proportion of revenue-generating companies
- Strong orientation around scientific innovation

Biotech companies range in size from 5 people or less, in the case of a start-up, to 20,000 employees, as in the case of Amgen which is part of a group of companies frequently termed 'big biotech'. With companies the size of Amgen and the diversification of their technology platforms, the distinction between biotech and pharma continues to blur. Gilead, commonly termed a 'big biotech', now has a larger market cap than some of the pharma group, such as GSK.

Biotech sits at the centre of a number of different sectors with overlapping workforces, investment and technology. Companies often spin-out from academia which produces industry-side scientists and medics that can go on to supply pharma and biotech with new talent. Biotech also has close alliances with pharma, recruiting its talent, feeding its innovation through partnerships, as well as achieving investor exits through acquisitions. The capital intensive funding model of biotech places the sector inextricably close to venture capital, exerting a range of influences, not merely financial, on the companies that receive investment. Venture capitalists themselves generally come from three main backgrounds; they have been CEOs/co-founders in biotech, management consultants, or investment bankers/financiers (National Venture Capital Association, 2011).

Partnerships and alliances are playing an increasingly prominent role in the sector. The challenges faced by pharmaceutical companies in generating innovative research has created a trend towards external R&D. Biotech companies serve as the major destination for pharma's investment, designed to replenish development pipelines. Big pharma is not, however, the only game in town; increasingly biotech-biotech deals are being made, in addition to alliances with academia and even not-for-profit foundations or patient groups. The sector is now a complex ecosystem of innovation with alliances across borders and cultures. This evolving ecosystem creates a need for skills and experience that are geared towards the effective cultivation of complex, multi-stakeholder alliances.

1.3 Educational backgrounds of men and women

Biotech is a sector with a highly educated workforce; PhDs, medical degrees (MDs), and MBAs are common and sought after for a range of positions. Differences in the number of men and women attaining these, and other qualifications such as Pharm.D, will broadly impact on the flow of talent through the sector.

The results of a 2012 study showed that in the EU, 57% of graduates with a PhD in Life Sciences were female and in the US the proportion stood at 53% (European Commission, 2012). Recent MBA enrolment statistics show that women still make up less than 50% of the class cohort at Harvard (39%) and Wharton Business Schools (42%) in the US and fewer still at Europe's INSEAD (32%) and London Business School (33%). Medical degrees however are increasingly equally distributed between genders, the Harvard Medical School class of 2013 was 46% female, and from a 2012 survey of students enrolled at the top five US medical schools it was found that 55% of students were female (Admission Consultants, 2012). Statistics from the British General Medical Council suggest that 44% of registered doctors in the UK are female.

1.4 The business case for investing in diversity

The Credit Suisse Research Institute published a report in 2012 that looked at the performance of 2,360 companies over the last six years and concluded that investing in companies with women on the boards made for better returns in comparison to those with all-male boards (Credit Suisse, 2012). Companies with one or more women on their board delivered, on average, higher returns on equity, lower gearing, better annual growth and consistently higher price/book value multiples. Thomson Reuters also conducted research into the metrics of board diversity but found that their results could not be taken as conclusive evidence of the business case for diversity (Thomson Reuters, 2013). Nonetheless, the data did show that companies with mixed boards tend to give better returns in keeping with benchmarks, whereas companies with all male boards displayed more volatility. The principle of 'critical mass' features in much of the research on the topic of gender diversity in the boardroom such as the McKinsey & Company report 'Women Matter: Gender Diversity, a Corporate Performance' (McKinsey & Company, 2007). The critical mass principle suggests that in order for a mixed board to outperform all male boards there must be a high enough ratio of women – i.e. 3 out of 10 – for the female members of the board to be seen as individuals rather than 'diversity figureheads'. As a general trend, larger companies are more likely to have women on their boards, and sectors that are closer to consumer demand are even likelier still to have a higher proportion of female board members, but the numbers are still low.



**GENDER-DIVERSE
BOARDS OUTPERFORM
ALL MALE BOARDS
ONCE THEY REACH
A CRITICAL MASS OF
FEMALE MEMBERS**

2

THE BIOTECH LEADERSHIP LANDSCAPE

#biotechXY



2.0 The biotech leadership landscape

2.1 Women in the biotech boardroom

- Analysis of 1,491 therapeutic and diagnostic SME (between 10–1,000 employees) biotech companies in Europe, California (CA) (US) and Massachusetts (MA) (US).
- 59.9% of companies in Europe, and 52.0% of companies in the US (CA and MA) have an all-male board of directors.
- Of the total number of board seats in Europe, women hold 11.2%. In the US (CA and MA), 9.7% of board members are women.
- Less than 4% of companies in Europe and the US have a female chair.

Figure 1 / Over 50% of biotech companies in Europe and the US have an all-male board

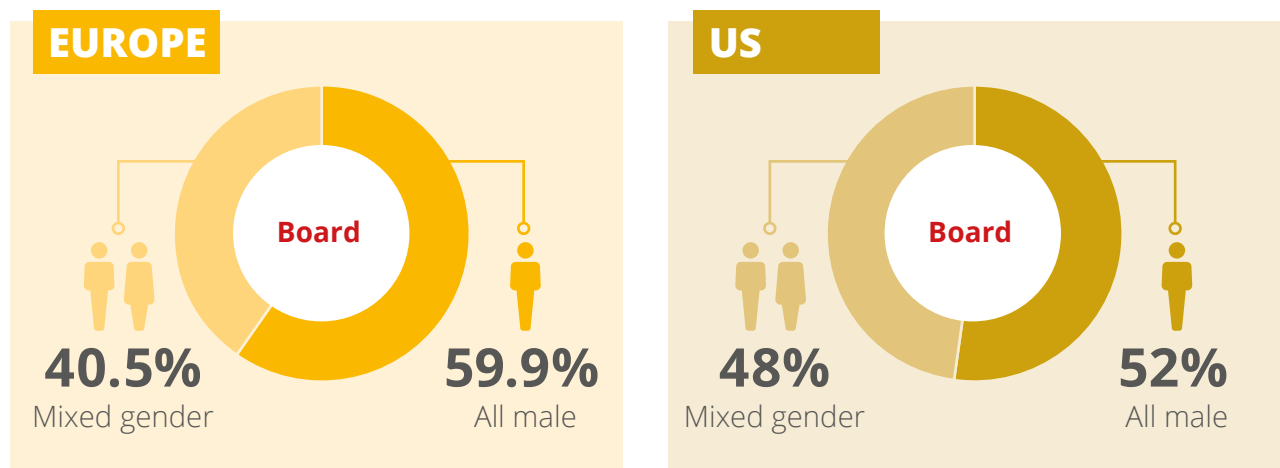


Figure 2 / Biotech's board members are predominantly male

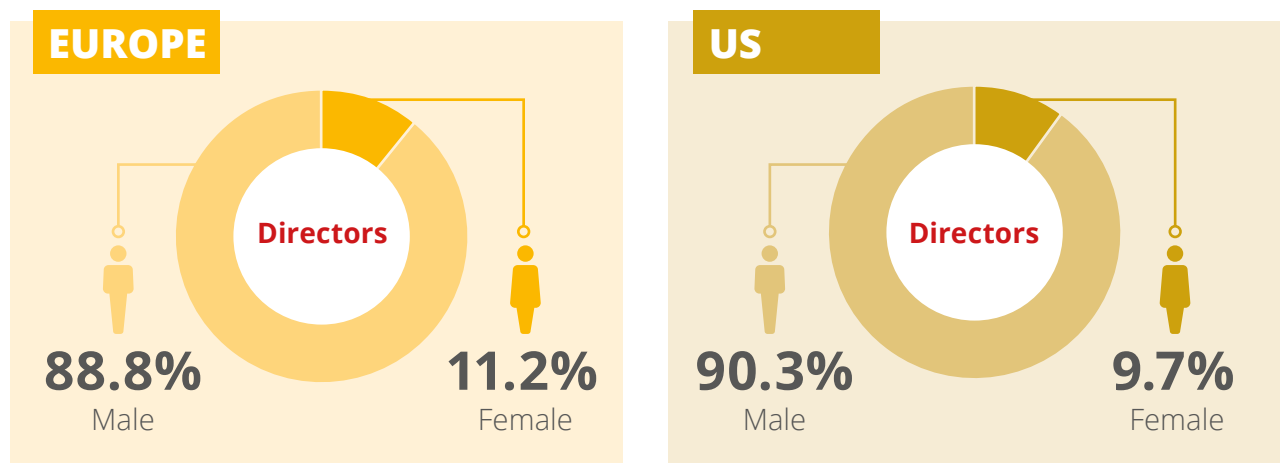





Table 1 / Biotech's female chairs identified in research

		
COMPANY	CHAIR	COUNTRY
AmVac AG	Marie Christine Kopkow	Switzerland
Beactica	Gisela Sitbon	Sweden
BerGenBio AS	Susan Foden	Norway
eFFECTOR Therapeutics	Carol Gallagher	US (CA)
Genable Technologies Ltd	Annette Clancy	Ireland
Genetrix SL	Cristina Garmendia Mendizábal	Spain
Genocea Biosciences, Inc.	Katrine Bosley	US (MA)
ImaginAb, Inc.	Abbie Celniker	US (CA)
Immunicum AB	Agneta Edberg	Sweden
MinervaX	Ingelise Saunders	Denmark
Nabriva Therapeutics AG	Denise Pollard-Knight	Austria
RAPID Pharmaceuticals AG	Gaytri Kachroo	Switzerland
SOTIO a.s.	Jiřina Bartůňková	Czech Republic
Vaxdyn, S. L.	Pilar Pérez Romero	Spain

2.2 Women in the leadership team

- Analysis of 1,491 therapeutic and diagnostic SME (between 10–1,000 employees) biotech companies in Europe, California (CA) (US) and Massachusetts (MA) (US).
- Biotech's leadership team analysis included both C-suite and functional level leadership positions.
- 21.7% and 20.8% of the management team in Europe and the US (CA and MA) respectively are women.
- There is no difference in gender diversity at board or management level between public and private biotech companies in Europe or the US.

Figure 3 / Women make up less than 25% of leadership teams

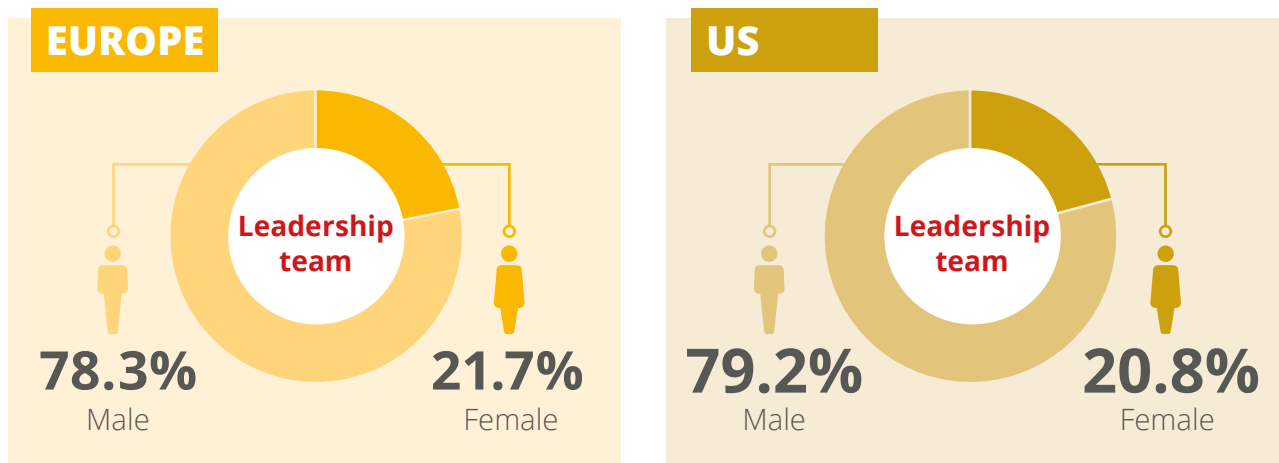
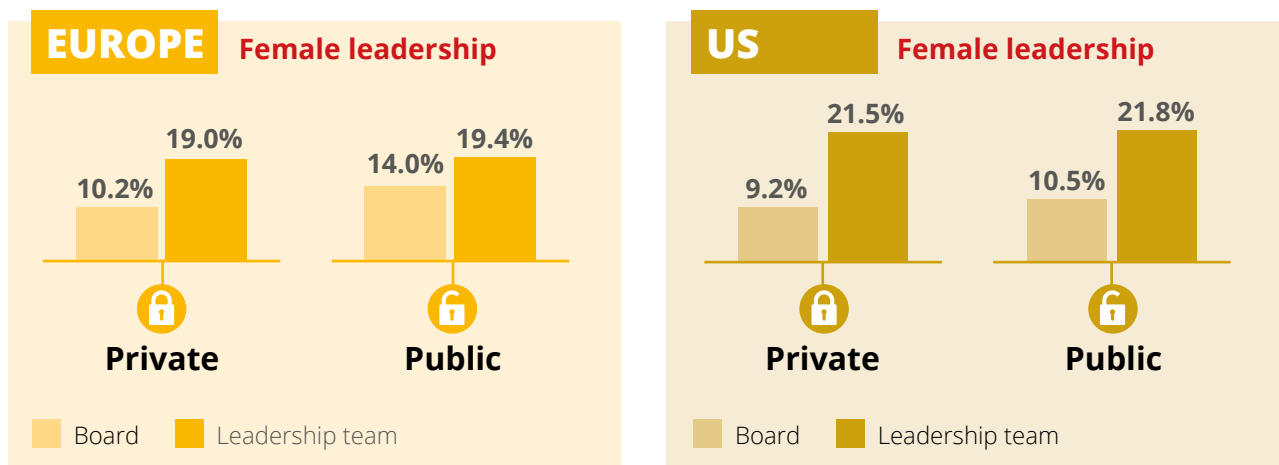


Figure 4 / Gender diversity does not increase following public listing



2.3 Europe by numbers

- High levels of variation in the gender diversity of biotech boards and leadership teams is seen across Europe.
- Germany and the Netherlands have the lowest proportion of women in board positions, at 3.8% and 4.1% respectively. The two countries also have the lowest proportion of women in management teams in Europe.
- Scandinavia (15.5%) and France (17.4%) have the highest proportion of women in the boardroom.
- In Spain, women hold over one third of leadership positions.
- The UK falls just below the European average with regard to women in board and management level positions.

Figure 6 / Distribution of biotech companies in Europe

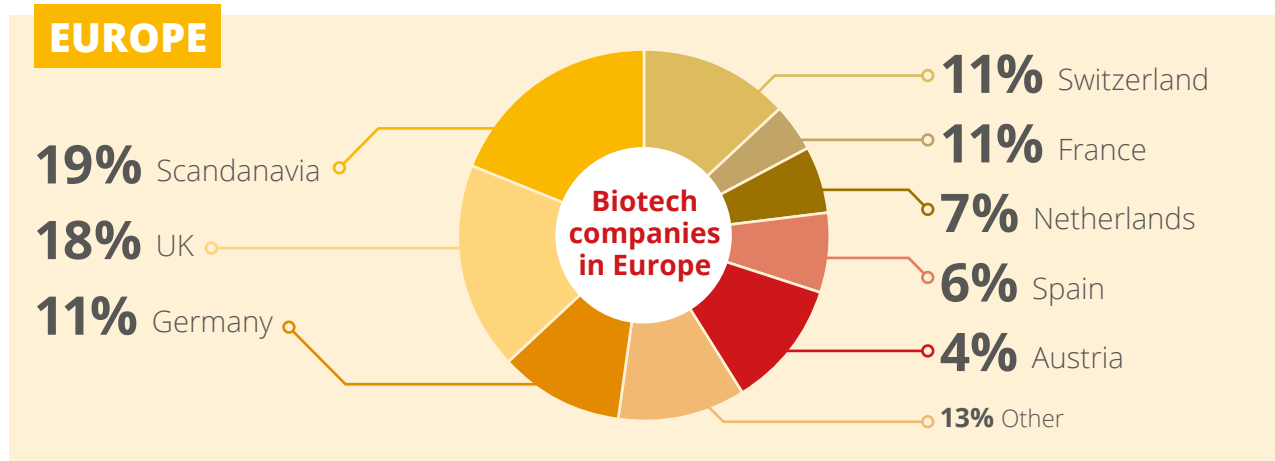
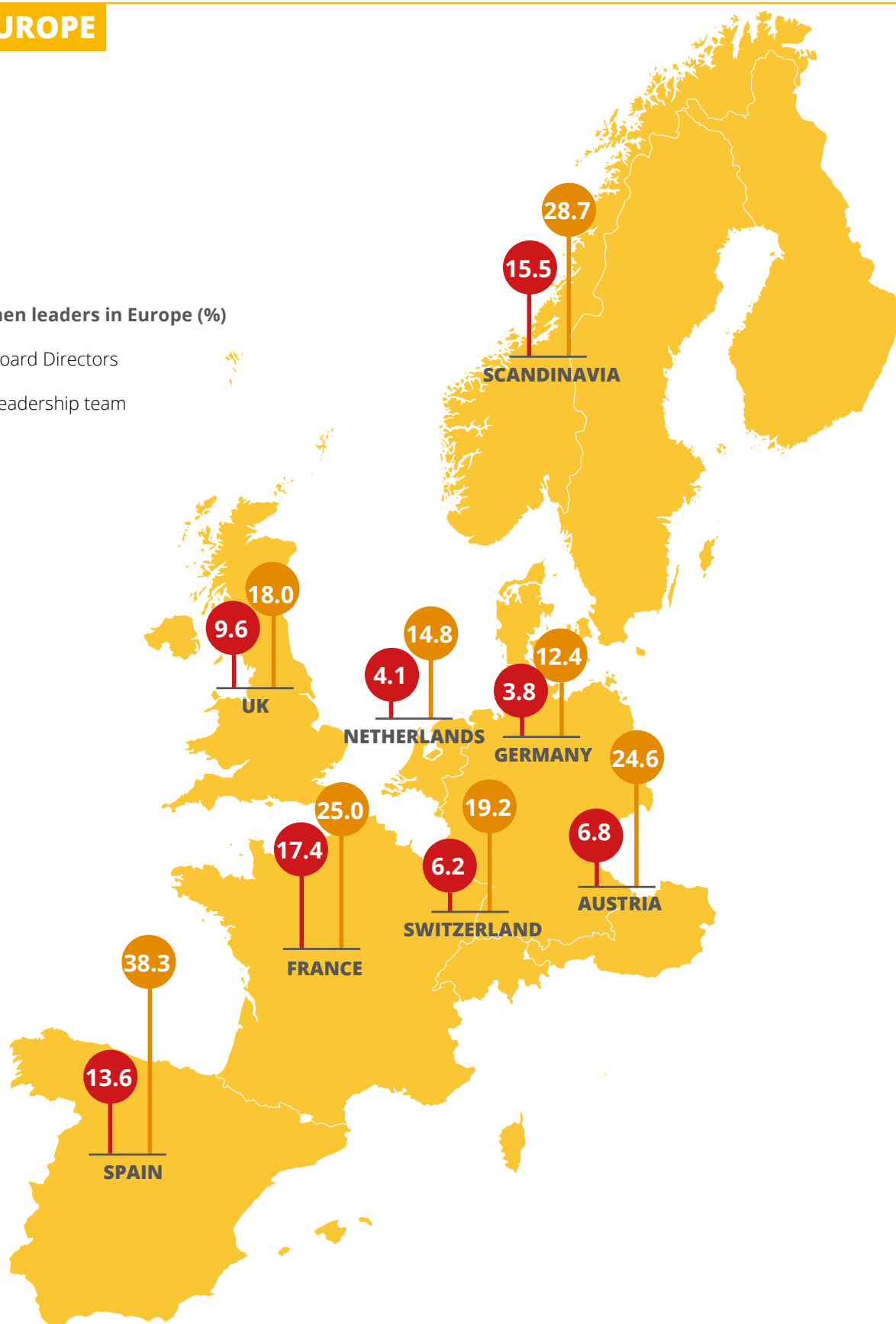


Figure 7 / Biotech companies in France, Scandinavia and Spain are leading the way in Europe**EUROPE****Women leaders in Europe (%)**

- Board Directors
- Leadership team






2.4 Gender diversity in big biotech

Biotech companies with over 1,000 employees were excluded from the SME biotech analysis in sections 2.1–2.3 as, companies that vary this significantly in size will have very different HR and talent development structures, as well as differences in company maturity and corresponding implications. We therefore looked to analyse gender diversity in leadership within ‘big biotech’.

- Average of 19.2% female directors in the boardroom, over twice that of US small/mid cap biotech.
 - Women hold 30% of board seats at Cubist, 27% at Biogen and 22% at both CSL Behring and Celgene.
 - At the other end of the spectrum, Regeneron (8%) has 11 male directors of a total 12. Biomarin, who have a smaller board of 10 directors, has Elaine Heron as the sole female director.
 - Unlike small/mid cap biotech, the proportion of women in the management team is lower than in the boardroom with an average of 14.7% across the 10 companies.
 - Gilead and CSL Behring has a leadership team that is 25% female, Cubist and Amgen are 22% and 21% female respectively.
 - Both Biomarin and Regeneron have exclusively male leadership teams.
 - Broader analysis shows similar trends elsewhere, with Shire at the higher end with 22% board and 33% executive level. Allergan and Actelion at the low end, with only one female board member at Allergan evident.
 - The majority of women in big biotech management are in functional level leadership roles, in particular, a number of women in SVP Human Resources positions.
 - Robin Washington, CFO at Gilead and Jackie Fouse who recently moved from the CFO position at Celgene to head up Global Hematology and Oncology are two exceptions within big biotech, both have financial background and experience in a range of non-healthcare sectors. Lorianne Masuoka also sits in the CMO role at Cubist.
-

Table 2 / Gender diversity in big biotech

 COMPANY	 BOARD	 LEADERSHIP
Amgen	17%	21%
Gilead Sciences	18%	25%
Celgene	22%	13%
Biogen Idec	27%	17%
CSL Behring	22%	25%
Regeneron	8%	0%
Alexion Pharmaceuticals	18%	11%
Vertex Pharmaceuticals	20%	13%
BioMarin Pharmaceuticals	10%	0%
Cubist Pharmaceuticals	30%	22%
Average	19.2%	14.7%

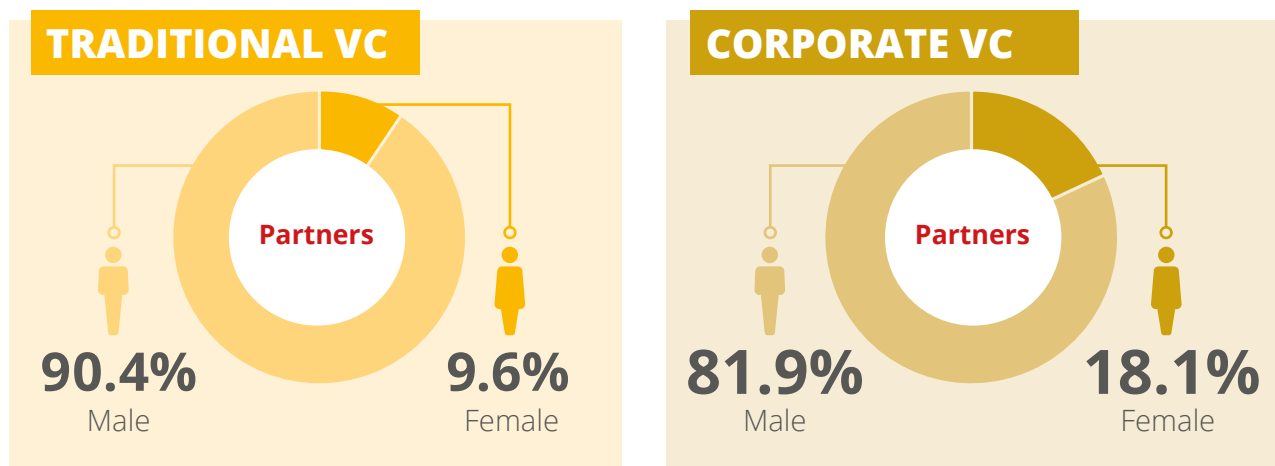
● Below European average
 ● Approaching European average
 ● Above European average

Amgen	Victoria H. Blatter – SVP, U.S. Government Affairs; Suzanne Blaug – SVP, Global Marketing and Commercial Development; Diana L. McKenzie – SVP and CIO; Alison Moore – SVP, Process Development; Cynthia M. Patton – SVP and Chief Compliance Officer; Judith C. Pelham – NED; Rebecca M. Henderson – NED
Gilead Sciences	Robin Washington – CFO; Katie Watson – Senior Vice President, Human Resources; Gayle Edlund Wilson – NED; Carla A. Hills – NED
Celgene	Jacquelyn Fouse – President, Global Hematology and Oncology; Carrie S. Cox – NED; Gilla Kaplan – NED
Biogen Idec	Susan H. Alexander – EVP Chief Legal and Corporate Secretary; Adriana Karaboutis – Executive Vice President, Technology and Business Solutions; Caroline Dorsa – NED; Nancy Leaming – NED; Lynn Schenk – NED
CSL Behring	Laurie Cowan – SVP Human Resources; Karen Etchberg – EVP Quality and Business Services; Marie McDonald – NED; Christine O'Reilly – NED
Regeneron	Christine Poon – NED
Alexion Pharmaceuticals	Clare Carmichale – Chief Human Resources Officer; Anne Veneman – NED; Michele Burns – NED
Vertex Pharmaceuticals	Megan Pace – Senior Vice President Corporate Communications; Margaret McGlynn – NED; Elaine S. Ullian – NED
BioMarin Pharmaceuticals	Elaine Heron – NED
Cubist Pharmaceuticals	Lorianne Masuoka – Chief Medical Officer; Jennifer Jackson – SVP Regulatory Affairs; Maureen Powers – SVP HR; Mary Thistle – SVP BD; Alison Lawton – NED; Nancy Hutson – NED; Jane Henney – NED

2.5 Gender diversity in venture capital

- Venture capital (VC) has a major influence in biotech as the predominant funding route for early stage companies. Investing VCs typically sit on the boards of the companies that they invest in and thus play a role not only in financing but also in the direction and decisions that a company takes. VCs also often identify and select CEOs for their portfolio companies. Through these three main routes VCs exert high levels of influence in biotech and thus diversity in their ranks was evaluated.
- Analysis of the major biotech Venture Capital firms demonstrates that less than 10% of partners at traditional VC firms are female.
- Gender diversity in corporate VC (18.1%) is almost twice that of traditional VC (9.6%).




Figure 8 / Corporate VC has a greater proportion of female partners than traditional VC firms



A snapshot of US small/mid-cap executive biotech compensation

- Analysis of 50 public biotech companies in California and Massachusetts.
- There is comparable base salary and total compensation for men and women.

Table 3 / C-suite compensation in Public US biotech indicates gender parity

			
	ROLE	BASE SALARY AVERAGE	TOTAL COMPENSATION AVERAGE
MA	Male CFO	\$298,357.13	\$1,000,032.63
	Female CFO	\$338,686.80	\$1,282,997.80
	Male CSO/CMO	\$344,796.06	\$998,105.94
	Female CSO/CMO	\$312,007.63	\$1,410,468.71
CA	Male CFO	\$279,311.57	\$1,191,684.07
	Female CFO	\$316,628.82	\$796,876.09
	Male CSO/CMO	\$304,343.88	\$1,048,111.35
	Female CSO/CMO	\$394,835.86	\$1,412,453.14

MA	ROLE	NUMBER	PERCENTAGE
	Male CFO	16	76.19%
	Female CFO	5	23.81%
	Male CSO/CMO	16	66.67%
	Female CSO/CMO	8	33.33%

CA	ROLE	NUMBER	PERCENTAGE
	Male CFO	14	56%
	Female CFO	11	44%
	Male CSO/CMO	17	71%
	Female CSO/CMO	7	29%

- The 12 currencies of the European Union and the further participation of the Swiss Franc and Norwegian Krone, creates too many complexities for a suitable comparisons of compensation between male and female executives in Europe.
- Different national taxation regimes and cost of living contrasts heavily influence the executive compensation landscape across Europe.
- The comparatively small number of publicly traded biotech companies and limitations around the public availability of executive compensation throughout Europe further restricts compensation analysis.

3

CASE STUDIES

#biotechXY



3.0 Case studies

The following case studies offer insights and perspectives into practical diversity programmes from ‘big-biotech’ and large pharma companies. While these companies have deeper resources than biotech SMEs, examination of their diversity initiatives allows for all companies to learn from others in the sector.

Featured case study

3.1 The Merck Serono approach



- HQ in Darmstadt, Germany
- Merck Serono is part of the Merck Group which includes Merck Millipore

"We believe that a diverse workforce and an inclusive culture strengthen our integrity and drive success."

MERCK SERONO'S WOMEN EXECUTIVE LEADERS



Belén Garijo
President and CEO



Susan Herbert
Head of Global
Business
Development



Elcin Ergun
Head of Global
Commercial

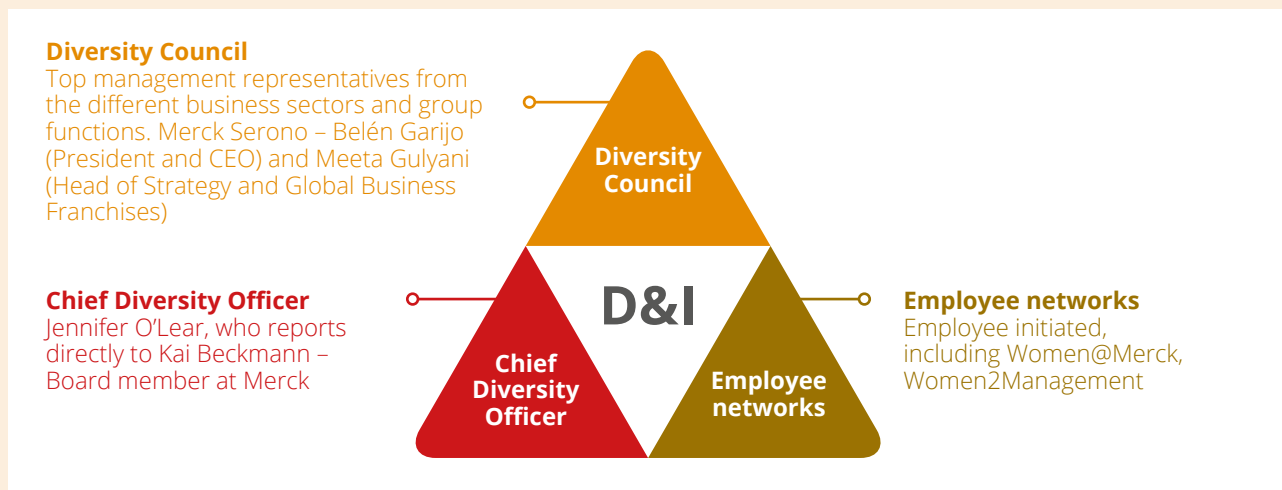


Meeta Gulyani
Head of Strategy
and Global Business
Franchises

Who is Belén Garijo?

Belén Garijo was a practising physician (MD) for 6 years before moving into biopharma. During her 25-year career in the biopharmaceutical industry, she has held diverse senior functions in a number of countries. She worked in R&D for 8 years, initially as a medical director of Abbott Laboratories' Spanish affiliate, before moving to commercial functions of increasing responsibility. She joined Merck Serono as EVP, Chief Operating Officer in 2011 and was promoted to President and CEO in 2013. It was announced in September 2014 that she will succeed Stefan Oschmann in heading the entire pharmaceutical business for Merck. Prior to Merck Serono, Belén was SVP, Global Operations Europe for Sanofi-Aventis where she also took on the role of Global Integration Leader for the Genzyme

acquisition. She frequently emphasises the importance of risk-taking and has been described as 'witty' and 'dynamic'. Belén's approach to decision making revolves around asking three questions: What are the scenarios? What are the options? What are your recommendations and why? Belén also sits on the board of L'Oréal, Banco Bilbao Vizcaya Argentaria SA and PhRMA (Pharmaceutical Research and Manufacturers of America). She says that Merck Serono's focus on developing a diverse workforce, in terms of gender, but also nationalities, ethnicities, cultures, generations, or styles will "maximize competitive advantages that this is going to bring us." ●

Figure 9 / At Merck, Diversity and Inclusion is driven by the business and supported by HR

Central to Merck's approach is establishing D&I as a business priority; placing the topic at the very heart of the management agenda. Strong positive signals emanate from the top at Merck Serono, with women in influential leadership roles: CEO, Head of Global BD, Head of Strategy and Global Business Franchises and Head of Global Commercial. These women are also from diverse nationalities: Spanish, British, Indian and Turkish respectively. The make-up of the Diversity Council at Merck further highlights a belief in the centrality of diversity and inclusion to Merck's success; leaders from the various executive teams sit on the Council in a demonstration of the company's commitment to issue, and belief that business drives the topic. Moreover, Jennifer O'Lear – from the dedicated position of Chief Diversity Officer – reports directly to the Merck board ensuring the delivery of a coherent message, focus and ambition across the company.

Merck's approach encompasses three key areas:

- **Transparency** – tracking targets and key performance indicators (KPIs), measuring progress and impact.
- **Communication** – raising awareness, communicating company culture and facilitating an open discussion.
- **Implementation** – ensuring leadership understanding and commitment, embedding D&I supporting activities in business and HR processes, and providing opportunities for individual development and involvement through target group specific training & mentoring, employee networks, and work-life balance initiatives.
- Interacting with research to inform the D&I approach: The company recognises the importance of D&I research, working with external groups such as the Centre for Talent Innovation (CTI) to support, develop and explore diversity related trends. Merck has also volunteered information for the Mixed Leadership Index – a German initiative to evaluate the effectiveness of D&I approaches in the DAX 500.
- Recruiter targeted initiatives: Merck runs a D&I workshop for recruiters and emphasises a diversity requirement in headhunter request for proposals (RFP). There was an initial push from HR to ensure that a significant proportion of women were on the shortlist for key positions, this then translated into a permanent consideration, across the business.
- WoMentoring: A mentorship program has been piloted to assist women in pre-management positions to explore and evaluate their leadership ambitions.
- Work-life balance: Merck has a bespoke program – 'Assistance4me' – that provides access to various services and programs that are designed to support employees in better managing their work-life balance. In partnership with 'famPLUS' and 'benefit@work', the company provides a range of support services: evaluation and identification of optimal childcare solutions, caring for the elderly, and home help such as laundry and shopping. The company also expanded their kindergarten to offer more childcare places.
- Ensuring compensation equality: Merck undertook a study on gender-balance in remuneration within the company.

In addition to the support and alignment of Merck's senior management team to diversity and inclusion, a number of programs and initiatives have been developed that are visible across the company:

Dietmar Eidens, EVP HR at Merck, describes the need to "start a fire", to start it quickly, and to follow promptly with a second and third change to establish momentum. Top to bottom design isn't needed he says, what is required is courage, commitment and, ultimately, leadership.

3.2 Cubist: Getting board ready

Cubist, led by CEO Mike Bonney, is preparing the company's female SVPs and VPs for external board positions.

CUBIST

Cubist, headquartered in Massachusetts, is a rapidly growing biotech company leading the fight against antibiotic resistance. The company has a number of women in the executive team and a high proportion of female VPs.

- Jennifer Jackson – SVP Regulatory Affairs
- Lorianne Masuoka – SVP Clinical Development and Medical Affairs and Chief Medical Officer
- Maureen Powers – SVP HR
- Mary Thistle – SVP BD

Over the last 18 months members of the Cubist senior management team have expressed an ambition to further their career by obtaining non-executive director (NED) positions. Concurrently, Mike Bonney, Cubist's CEO, became involved with the Boston Club (www.thebostonclub.com) where he is now a member of the Corporate Advisory Board. Mike realised, as a result of his involvement with the Boston Club, that he could actively support his team in their aspirations and set out to lead an informal program within the company that would lay the groundwork for the critical step to a first board position.

The Cubist group meets every couple of months and have, to date, focused on the 'nuts and bolts' of the boardroom, including: what is expected of board members, responsibilities to shareholders and to management, and what is required of the different board committees. Mike provides an overview of financial, legal and aspects of governance, illustrated with examples from Cubist, which serves to inform discussion. Mike's sharing of his personal experiences as a CEO, NED and Chair takes place in an informal setting structured around Q&A. The group even has 'homework tasks', such as exploring how Cubist is incorporated. SVPs and VPs have also had the opportunity to attend courses at the Boston club.

Beyond this education initiative, senior executives in the company have participated as observers in the open section of board meetings, an experience they describe as being extremely informative. Cubist's SVP of HR, Maureen Powers, has brought in recruiters to discuss the process of boardroom appointments. As a result, individuals within the group have been tailoring their resumes, working on elevator pitches and thinking about personal branding. A major push has been implemented to prioritise focused networking and increase exposure – getting the word out that these executives are interested in board positions – through interactions with NEDs, CEOs, VCs and head hunters. Building relationships is a critical route to securing a board position, but also an activity that brings direct value to Cubist as an organisation. Mike and Rob Perez, Cubist's COO, in addition to a number of current and former senior execs at the company, are described as being extremely supportive; facilitating introductions and providing endorsements. Cubist's executive women emphasize the impact that Mike's willingness to take time out of a demanding schedule to whole-heartedly endorse the importance of their personal development has had.

A number of SVPs/VPs describe their realisation that without a CEO or CFO title, obtaining an NED position may be a challenge. But there is an increasing appreciation that these female executives have a lot to offer; Cubist has gone through a period of



BUILDING RELATIONSHIPS IS A CRITICAL ROUTE TO SECURING A BOARD POSITION, BUT ALSO AN ACTIVITY THAT BRINGS DIRECT VALUE TO CUBIST AS AN ORGANISATION

high growth with numerous success stories including the breaking of new ground with novel antibiotic products, and pioneering work in areas such as reimbursement models. With their experiences at Cubist, in addition to those gained over the course of a rich and successful career, there is an increasing awareness amongst this group of SVP/VPs that board opportunities are accessible, that there isn't a need to wait for a 'magical moment' to realise this ambition, and that a host of companies could benefit from their experience and insight.

3.3 Sanofi: Raising the profile of female talent

Sanofi uses 'speed networking' to increase the visibility of high-potential employees through direct interaction with company executives.

Twelve months ago, mobilised from the EVP level at Sanofi, a 'speed networking' initiative was launched. The objective was to raise the visibility and exposure of key women within the company. The format of the initiative is simple: 40 high-potential women are selected from across functions to attend the 'speed networking' day where they meet with three leaders from within the company for a ten-minute, one-to-one, discussion. These are top-level senior leaders, including members of the executive committee and the global management team. There is no defined format for the ten-minute slots; discussion can be about whatever they feel is most valuable. The vision is that junior members will give an elevator pitch, and senior member will respond with constructive feedback and advice.

The initiative is designed to be self-contained in its outcomes; although the process does allow junior employees to utilize the connections and feedback gained to maximize value from the experience. 'Speed networking' also serves as a trigger for women to realize that getting noticed makes sense and is absolutely necessary for a successful career.

The initiative has received extremely positive feedback from both junior and senior participants and is said to have created 'positive echoes' across the company. 'Speed networking' will continue to be a regular feature of talent development at Sanofi's HQ. More generally, Sanofi are in the process of building a global women's network and are focused on how to effectively engage senior leaders, as well as mechanisms to facilitate mentoring and sponsorship.



**SPEED NETWORKING
SERVES AS A TRIGGER
FOR WOMEN TO
REALIZE THAT GETTING
NOTICED MAKES SENSE
AND IS ABSOLUTELY
NECESSARY FOR A
SUCCESSFUL CAREER**

3.4 Johnson & Johnson: Data drives diversity

J&J highlights the power of data in the pursuit of greater diversity.

J&J have pioneered a number of women's leadership programs (including ASCEND in EMEA) with dramatic results and yet the most significant driver for change has been visible, tracked and highly utilised gender diversity data. Mapping diversity data allows J&J's management to look across the company and accurately identify 'trigger points' in the leadership pipeline. Critically, data is used to measure success and visualise the change trajectory.



J&J analyse key performance indicators (KPIs), including gender diversity metrics, through a visual dashboard that is employed by the HR team and senior managers across the company. Data is communicated more broadly to employees and is easily accessible for external uses e.g. stakeholder reports. At J&J in Germany for example, the proportion of women in leadership roles today is: board 30%, board -1 40% and board -2 50%. Therefore the 'trigger point' for gender diversity on the leadership pathway occurs at the director level (board -1) and is thus the focus of a range of initiatives. Profiles differ across countries within J&J: a worldwide view, enables the company to extrapolate from examples of best practise or to address weak links. Dashboard data is being extended to provide senior management with global oversight that will increase coordination within the company and accelerate progress.

A key component of data utilisation is the direct accountability of J&J's directors and senior managers for diversity within the team. Their role in driving a positive change in diversity is one of the criteria for leadership performance evaluation. This, in turn, serves as a mechanism by which the ambition of the executive team flows throughout the company and reinforces company culture.

3.5 Biogen Idec: Women's networks creating company value

biogen idec

Biogen Idec's Women's Innovation Network (WIN) North Carolina chapter has played a crucial role in forging a deep connection with a local patient group.

Biogen Idec launched WIN in 2011; the network is just one component of an extensive approach to increasing diversity, in all its forms, across the company. Of particular note, the company is launching an innovative program this November (2014) to place senior women in external NED positions.

Biogen Idec's haemophilia drugs – Elocate and Alprolix – for haemophilia A and B respectively, were recently approved in the US, becoming some of the first new therapies for haemophilia patients in 15 years. The need to build a strong relationship with the haemophilia community was an integral component of translating these innovative new therapies into real patient benefit. WIN's North Carolina chapter has played a central role in this effort, engaging directly with 'Haemophilia of North Carolina', a local patient group. As part of this developing relationship, WIN organized a community event to raise money for children with haemophilia to attend 'Camp Carefree', a week-long residential program where children can meet others with the condition and enjoy themselves in an environment tailored to their needs. The patient group's executive director and other members then visited Biogen Idec to give a presentation to employees and build further links between the company and the community.

"I'm excited that the RTP WIN Leadership team can have an impact on our employees and our local community! Partnering with the local Hemophilia Chapter and providing support for children with this disease was worth every effort. It's always a pleasure to give back to the community!"

Tanya Gorham, WIN Steering Committee member, Biogen Idec.

In addition to directly embedding Biogen Idec within the patient population, WIN also serves as an avenue for improved internal networking and mentoring, as well as for leadership development opportunities. Cross fertilisation and relationship building across functions occurs as a result of WIN activities, creating value through greater

co-ordination. Seeing the value that such improved co-ordination brings, WIN RTP Chapter created a job shadowing program which moves employees across functions and enables them to see the bigger picture of how the company operates. As a mechanism for growth, women are able to gain leadership experience at WIN in a low-risk environment, moving beyond the remit of their position and thus accelerating talent development within the company.

4

DELIVERING ON GENDER DIVERSITY

#biotechXY



4.0 Delivering on gender diversity

Research was conducted via two main methods: the first was a series of 60 topic-guided interviews with leaders from biotech, pharma and the investor community, and the second a global online survey completed by 530 respondents.

Interviewees and survey respondents were both male and female: 53.4% of survey respondents were men. Interviewees were predominantly CEO or C-Suite level executives while survey respondents ranged from junior/associate (14%) to C-Suite/EVP (17.6%) (see methodology in Section 6.0 for further details). The survey asked a set of standard questions but also directed respondents to answer a set of position-specific queries that we hoped would provide a nuanced picture of the different opinions held across managements positions. One section of the survey was designed specifically for Venture Capitalists and NEDs respectively but we were unable to collect a sufficient number of responses from these groups to utilise the data. Survey respondents are quoted anonymously throughout the report whilst quotes from our interviewees are named.

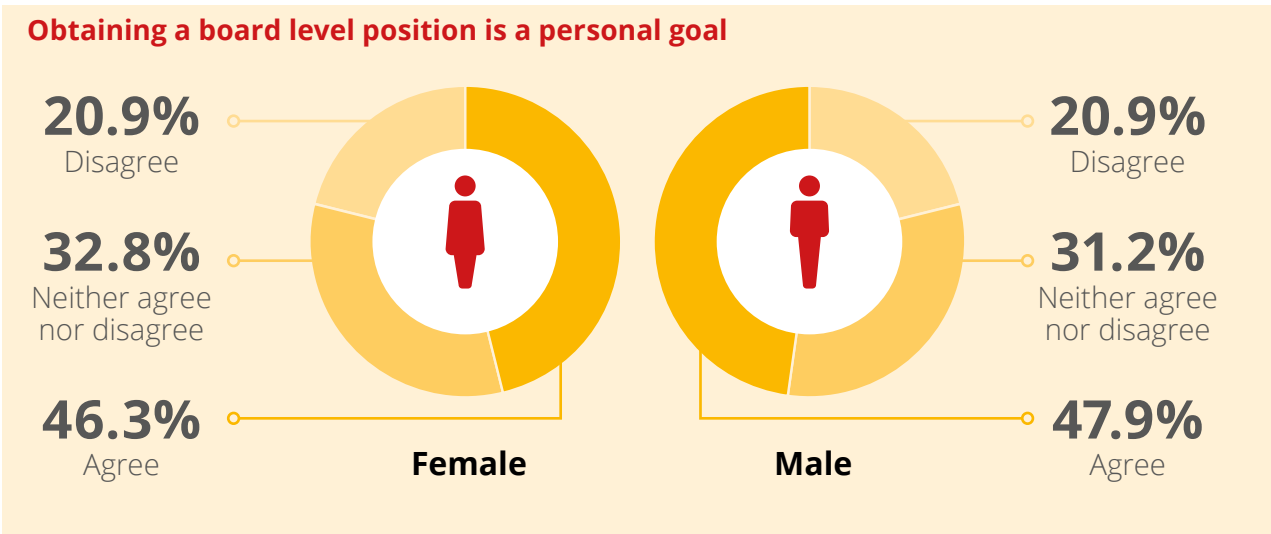


WITHIN THE LAST TWO YEARS, 59.4% OF C-SUITE MEN BUT JUST 16.0% OF C-SUITE WOMEN HAVE BEEN CONTACTED IN RELATION TO NED POSITIONS

4.1 Boardroom appointments

The global survey revealed that the boardroom aspirations of men and women are almost identical; just under 50% of respondents agreed that obtaining a directorship was a personal ambition.

Figure 10 / Men and women share the same level of ambition for non-executive directorships



Biotech companies use two main routes to appoint new board members: personal networks, and executive search firms. Interviews demonstrated that both approaches are in frequent use today, depending on the company in question. We found that cost is one reason small biotech firms might explore their extended networks for candidates before engaging a search firm to conduct a more comprehensive search. Interviewees from the sector cited the highly specific combinations of skills and experiences required to fill senior appointments as a considerable challenge in diversifying Boards or management. This complexity considerably narrows the field of potential candidates, regardless of gender. A number of executives from larger companies acknowledge that a more systematic process demonstrates a commitment to better governance.

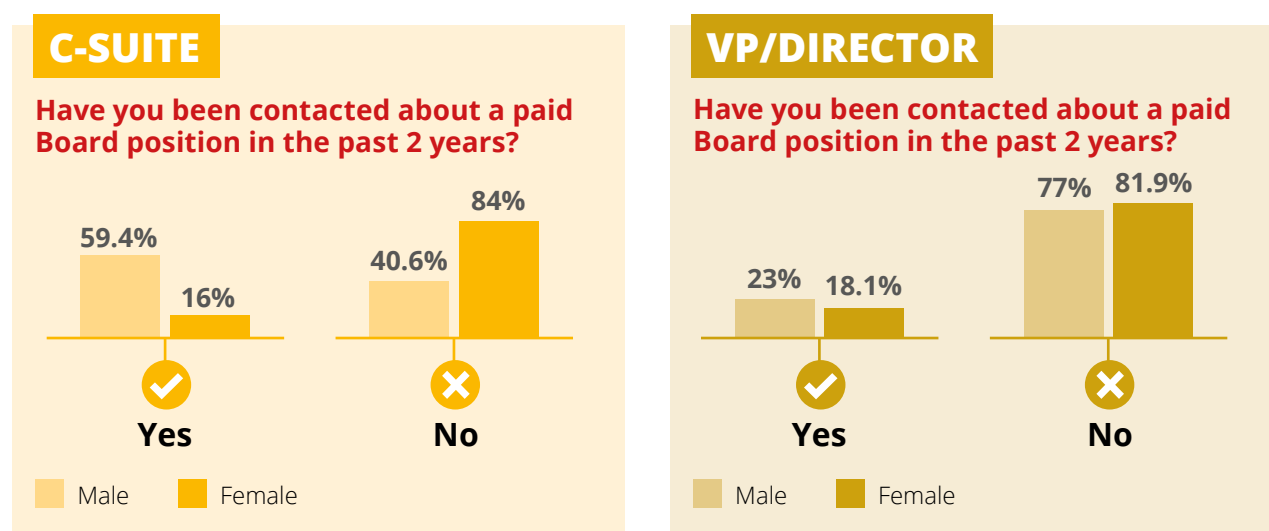
Our survey revealed that women in the C-suite are less likely to be contacted with regard to boardroom opportunities than their male counterparts. Within the last two years, 59.4% of C-suite men but just 16.0% of C-suite women have been contacted in relation to NED positions: this difference is statistically significant ($p > 0.001$). At VP/Director level, men and women are contacted with similar frequency, although on average and in accordance with their seniority, only 20.6% of respondents had been contacted. One extenuating factor in relation to the disparity between male and female C-suite executives being contacted for board positions is that across the C-Suite, roles are not all equal. CEOs, by virtue of their prominent position at the head of the company, are at the top the list when it comes to being offered an NED role. As the majority of biotech CEOs are male this affects the findings.



THE WORLD HAS CHANGED, THEREFORE BOARDROOMS MUST REFORM TO REFLECT EVOLUTION IN THE SECTOR. MORE ATTENTION MUST BE PAID TO BOARDROOM CULTURE WHICH, CRITICALLY, UNDERPINS PURPOSE, VISION, STRATEGY AND IMPLEMENTATION ACROSS A COMPANY

JEREMY LEVIN
FORMER PRESIDENT
AND CEO, TEVA

Figure 11 / Within the C-Suite, women are less likely to be contacted for boardroom positions than men

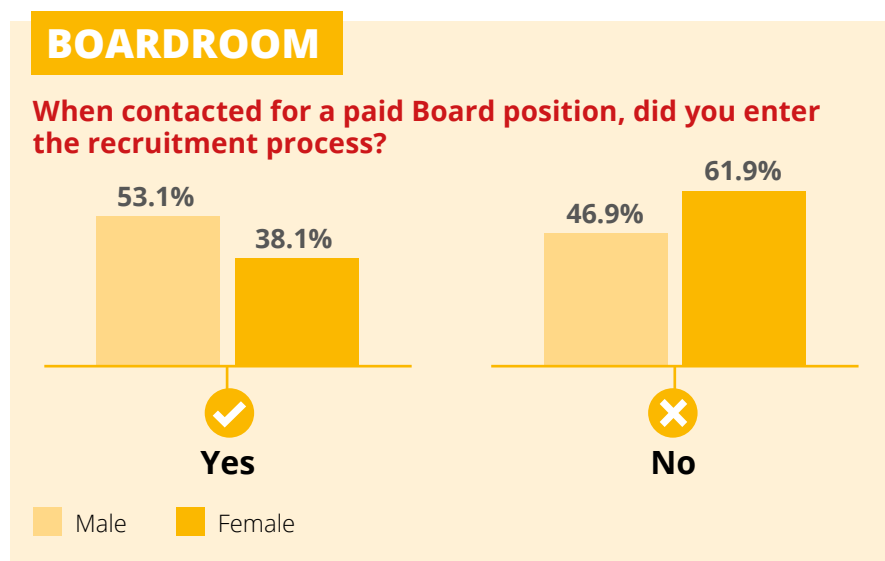


Numerous interviewees expressed views on the willingness and availability of women for boardroom positions. One executive described approaching five women for a board position who all turned down the opportunity. There are a number of reasons why this may be the case, but, it should also be kept in mind that managers and recruiters will inevitably be more cognisant of women turning down opportunities than men. As the pool of women being contacted is smaller than the equivalent male pool, the same women are most likely being contacted repeatedly. In most cases these women already hold a number of NED roles and are therefore not in a position to consider another. Given the market-preference for appointing NEDs with existing experience, regardless of gender, it is likely that this has some effect on perceptions of the regularity with which women turn down board positions. Another explanation gleaned from our interviews is that women are often '150% committed' to their executive role and thus do not have

the ‘bandwidth’ to consider NED roles until a later point in their career. There is also the unavoidable issue of family responsibilities that women frequently shoulder: when this time-commitment is combined with a major executive role it is not difficult to understand why women might turn down additional NED roles. Despite this variety of factors, our research indicates a general belief, amongst those in biotech leadership that: ‘the door is open for women on boards but they don’t want to step through it.’ Such an attitude will not lead to an increase in female NED appointments. The data collected via our global survey suggested that executives reject potential boardroom opportunities around one in every two times they are contacted, therefore, the results of our interviews must not be considered in isolation.

Results from the survey indicate that, when approached, 53.1% of men and 38.1% of women were choosing to proceed with the boardroom appointment process. This difference between genders was not statistically significant ($p=0.23$), and so (potentially because of our sample size) results were not conclusive. Reasons provided for not entering the recruitment process for boardroom positions include; not a good fit in therapeutic area interest (F), location and company credentials (F), not interested in the company (M), current priorities in position (M), at that moment satisfied with current position (M), not interested and no time (M).

Figure 12 / Women are entering into the boardroom recruitment process less frequently than men



We heard from a number of women who actively pursue boardroom opportunities but are struggling to make progress. This situation was also described by a highly experienced NED based in California who said that there are a considerable number of women in her network who are both interested and qualified for board positions but that opportunities for these women fail to materialise.

Male and female participants alike testified to having hired ex-colleagues, of seeing the same names crop up again and again, and of the small inner circle of decision makers that currently exists in the upper echelons of biotech. This paints a picture of a sector limiting its own potential for growth. Indeed, as several of our male interviewees readily identified, men are still much more comfortable appointing other men.



SOME WOMEN TEND TO LEAD IN A MANNER THAT FEELS DIFFERENT TO MEN AND IT REQUIRES BOARDS TO LOOK THROUGH A DIFFERENT LENS WHEN EVALUATING FEMALE CANDIDATES. I'D LIKE TO INVITE ALL EXECUTIVE SEARCH FIRMS TO BE INTENTIONAL ABOUT CONSIDERING AND PRESENTING FEMALE CANDIDATES TO THEIR CLIENTS AND EDUCATING THEM ABOUT DIFFERENT STYLES OF LEADERSHIP AND EXPERIENCE WOMEN BRING TO BOARDS

BECKY LEVIN
FOUNDER AND CHAIRMAN,
LEVIN AND COMPANY –
(EXECUTIVE SEARCH)

4.2 The view from the top

A number of interviewees discussed the unique nature of biotech: the impact that long development lifecycles and the complexity of R&D has on defining the sector's leadership. They described a small circle of decision makers who have typically worked together or alongside each other for over 20 years. They outlined a need for such close relationships built on deep personal trust because of development timelines and the high levels of risk that exist along the development pathway. This 'collegial' feel to the sector's leadership may be inhibitory to increasing diversity.

Greater gender diversity at board level, as well as in venture capital, relies primarily on the CEO pool; current and former CEOs are most frequently sought after for NED roles, and successful CEO experience is a major route into VC. In Europe, 7.7% of the SME biotech companies profiled have a female CEO. The route to CEO either occurs through entrepreneurship, as is the case of founder-CEOs, or through appointment. In the case of appointments, venture capitalists typically have a big say with regard to who sits in the top spot of their portfolio companies.

Interviews demonstrated that VCs do not consider diversity to be an investment priority. The role of a VC is to make strategic investments and achieve a return on investment for their funds over a 5–10 year period. Therefore speed is important, especially when considering the typical time taken to develop a therapy. VCs naturally prefer executives with a proven track record who can be up and running from day one which creates a system where CEOs are 'recycled' from a fairly limited pool. Some interviewees suggested that VCs needed to get better at analysing who would make good CEOs. VCs are investing funds from limited partners, typically pension funds and the like, which are headed by managers who are predominantly male. Without limited partners engaging or encouraging downstream diversity, it is difficult to envisage what might drive a shift in perspective among the VC community on the topic of diverse leadership.

Our analysis revealed that 9.6% of partners in traditional VC, and 18.1% of corporate VC partners are female. This demographic is also unlikely to change quickly as VC is an industry that very few people move on from; there is also comparatively little movement between firms and high barriers for new partners. A number of interviews, from a range of different view-points, suggested that VC is not appealing as a career choice for a lot of women. As a profession that is entered with a significant level of experience, the senior women who are in a position to move into VC are choosing a CEO role. They described a greater level of satisfaction in building a company than being an investor which is less 'hands-on'. The female executives that we spoke with did not rule out a move into VC at some point in the future but instead described their preference for playing an active role in a company setting. Others suggested that VC is a hostile environment for women. Clearly there are women who want to move into VC, however, the attractiveness of the sector to women should be considered. Our analysis revealed a difference in gender diversity between corporate and traditional VC, with a higher proportion of women partners in a corporate setting. There are potentially two main drivers for this difference: corporate VC gains structure and governance from its parent company, and, there are differing routes to VC within the two classes of firms. In traditional VC, partners tend to have a financial background, while corporate VCs typically come via a Business Development route with scientific roots. Corporate VC also does not share the same performance metrics as VC, often functioning as strategic investment arms of the parent with evergreen fund structures. This also changes the time horizon as they are often not accountable to limited partners.

Interviewees generally felt that for an executive or board member, the US was a better place to be a female leader than Europe. It was even suggested that Europe was '15–20 years behind' the US. The opposite view, that Europe, rather than the US, has a greater



THE KEY ISSUE IS HAVING ENOUGH WOMEN CEOS AND CXOS AVAILABLE FOR THE NED POOL. ONCE THAT HAS BEEN ESTABLISHED, TALENTED WOMEN WILL BE CROSS-REFERRED ON MERIT

RICHARD BARKER
NED, CELGENE



BOARD EXPERIENCE CAN BE A STEPPING-STONE TO BEING A CEO, AS IT WAS FOR ME. A GOOD WAY TO DEVELOP SENIOR FEMALES IS THROUGH NED OPPORTUNITIES. I AM LOOKING TO EXPLORE THE POSSIBILITY OF PLACING FEMALE EXECUTIVES FROM PSIOXUS ONTO EXTERNAL BIOTECH BOARDS, POTENTIALLY WITH SOME KIND OF RECIPROCAL APPOINTMENT ON MY OWN BOARD

JOHN BEADLE
CEO, PSIOXUS THERAPEUTICS

respect for female executives, was expressed by one interviewee. UK biotech was also singled out as being a difficult environment for female executives to succeed.

That women simply do not aspire to senior leadership positions – and in particular C-suite – was expressed in a number of the interviews we conducted. Adding weight to this perspective, a small proportion of women, typically in and around VP level at larger companies, described a preference for ‘second in command roles’, such as company President rather than CEO. Executive women described the challenge of junior female colleagues self-limiting their career aspirations. These women aspire to COO or VP level while their male colleagues fix their vision on the CEO position. Another comment was that junior women in their team felt as though they could not look for promotion as they were unable to take on ‘more work’, with the senior leader being keen to differentiate ‘greater accountability’ of increased seniority from that of simply ‘more work’. Many believe, and an abundance of research supports the concept, that male and female aspirations simply take a different shape and are expressed in different ways (e.g. women place less emphasis around title and financial reward). Interestingly, interviews suggest that this difference in motivation is still not understood by a number of biotech leadership teams, and that this is not factored in during internal promotion processes.

Clearly self-limiting perspectives are not the only factor at play but it is worth pausing to consider the very existence of ‘self-limiting perspectives’ among aspiring women in biotech, as this demonstrates the deep-seated nature of some of the challenges we face in the bid for greater diversity at management level. Senior female executive interviewees expressed frustration with the time it took, and the pace at which, they themselves moved up the ranks. Others described experiences where they had actively pursued promotion only for the role to be given to an external candidate: it was only after the external hire had failed to perform that they were given the role.

4.3 Mentorship and sponsorship

Research from Catalyst (www.catalyst.org) and other groups has found that access to mentoring is crucial for successful career progression and that women have limited access to the same quality of mentorship received by their male peers (Catalyst, 2011). Recently, sponsorship – a form of mentoring which sees the mentor use her or his influence with senior executives to advocate for the mentee – has gained popularity, and is promoted by some as an alternative to, rather than as another facet of mentorship (Hewlett, 2013). Research conducted at the Centre for Talent Innovation found that of their own volition, 43% of male employees and 36% of women would approach their manager for promotion or for a place on an innovative new project. With a sponsor advocating for them, that statistic rose to 56% and 44% respectively (Hewlett, 2010).

Opinions voiced by interviewees suggested that there is a strong divide between those that believe mentoring is of critical value and those that do not. The interviewees that speak positively about mentoring often emphasise that it is only of value if there is a specific focus or ambition for the relationship, such as a shared outcome, or the acquisition of a particular skill set. A number of the executives we talked to said that mentoring played a key role in helping them to realise their potential and existing capabilities at an early stage in their career.

Throughout interviews the concern was expressed by multiple individuals that men mentoring women can often be unsuccessful. Conversely, male sponsorship of women has been highlighted as crucial for female career development. As sponsorship often develops from mentorship it would therefore seem that male-to-female mentorship should not be dismissed out of hand. Interviewees also expressed concern that the



I LOVE BUILDING COMPANIES AND THE SENSE OF A MISSION IT GIVES YOU, I MAY MOVE INTO VC ONE DAY BUT AT THE MOMENT I AM DOING WHAT I AM MOST PASSIONATE ABOUT

DEBORAH DUNSIRE
CEO FORUM
PHARMACEUTICALS



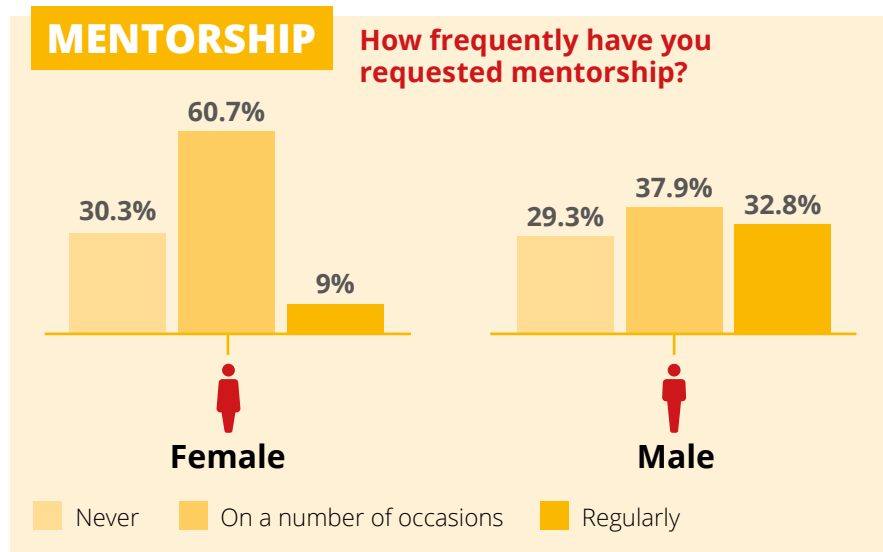
IF WE CONSIDER GLOBAL BIOPHARMA, TODAY THE BEST PLACE FOR AN EXECUTIVE WOMAN IS IN THE US AND IN BIOTECH AND MID CAP. THE CULTURES THAT EMBRACE THE UNIQUE CONTRIBUTIONS OF WOMEN ARE AGILE ENTREPRENEURIAL AND FOCUSED ON INNOVATION

ANNALISA JENKINS
CEO, DIMENSION
THERAPEUTICS

proportionally low numbers of female leaders diminishes the availability of female mentors. The dual responsibilities of executive management and caring roles in the home are a factor that prevents senior women from having the time to dedicate to mentor relationships.

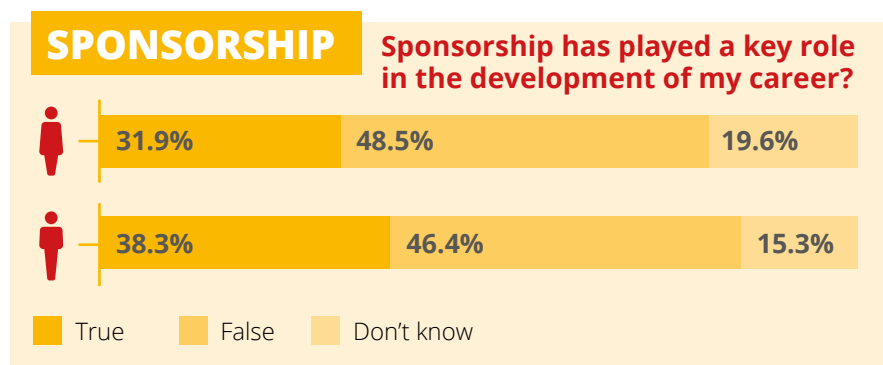
Our global survey considered the issue of access to mentorship and found that women request mentorship less frequently than men, with just 9.0% of women compared to 32.8% of men 'regularly' reaching out to potential mentors: this difference was statistically significant ($p=0.001$).

Figure 13 / Women are requesting mentorship less frequently than men



Survey responses demonstrated that the perceived impact of sponsorship on career development was the same between genders; 31.9% of women and 38.3% of men found identified sponsorship as having played a 'critical role' (non-significant, $p=0.08$). Interviewees suggested that it was easier for men to sponsor men, and that with cross-gender relationships there can be fear of a perceived 'sexual taint' which impacts negatively on both parties. Data collected by interview however did provide numerous examples where highly successful women attributed a significant role of male sponsorship on their rapid career progression.

Figure 14 / The perceived impact of sponsorship is the same between men and women



“It is an issue across all professions. It is often difficult for young women to approach older males for sponsorship for a variety of reasons, and older women are often not solicitous toward young women.”

Anon (f)

Formalised training, in particular boardroom preparation, was identified by interviewees as being important. Although it was recognised that –‘just training women is missing the point – training must be for men and women’. Finding coaches for up and coming senior leaders, in particular women who might be successful CEOs, was considered to be a valuable approach. The general outlook was that experience outweighs training but that training can be a useful supplement when faced with restrictions.

4.4 Visibility and network

Personal visibility within the sector is heavily influenced by title and company, in particular companies that have launched major products, have pioneering technologies, have announced major partnership or investment deals. Other factors that influence visibility are; conference speaking opportunities, media coverage, social media activity, personality and network.

Analysis of a sample of the major biotech and healthcare investment conferences indicates that, at some events, less than 10% of speakers are women. Biotech conferences generally have a larger proportion of female speakers than investor conferences. Typically, at investor conferences, companies are represented by the CEO or, occasionally, business development (BD) or investor relations (IR) professionals, which partially explains the paucity of female speakers. Survey responses however, indicated that men and women are speaking at conferences with equal frequency, although there was a small discrepancy between the proportion of men (15.7%) and women (6.8%) who regularly feature on the conference circuit.



COACHING AND
FORMAL TRAINING
CAN BE AN IMPORTANT
PART OF PREPARATION
FOR THE BOARDROOM,
KNOWING HOW TO BE
EFFECTIVE; TONE OF
VOICE, EYE CONTACT,
DRESS CODE, SUCCINCT
DELIVERY OF MEANING
ALL CONTRIBUTE TO
HIGH PERFORMANCE

MELANIE LEE
CEO, NIGHTSTARX

Table 4 / Women are less visible at major biotech and investor conferences



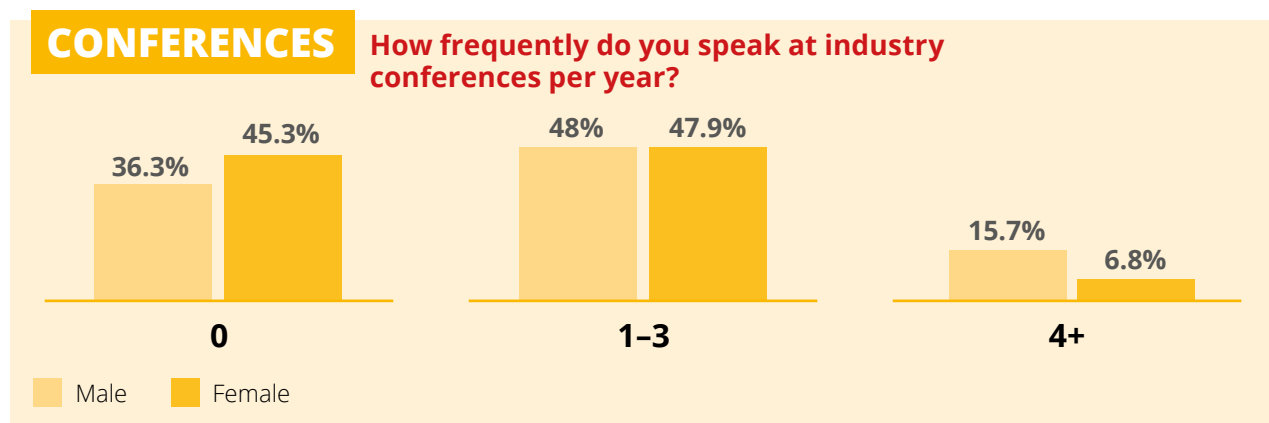
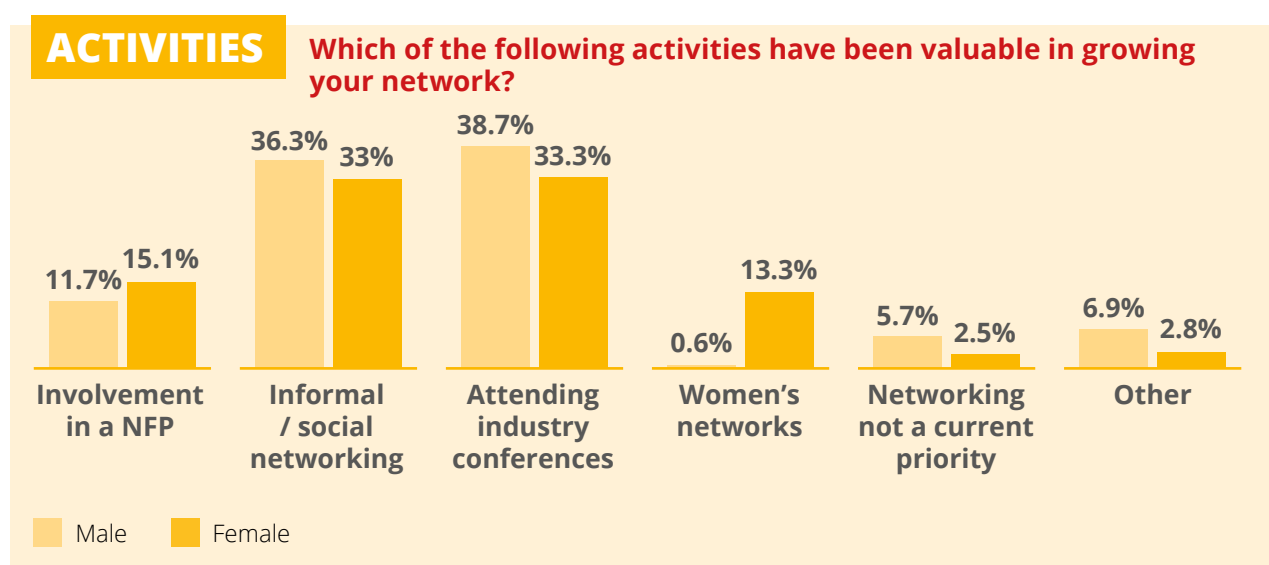
 CONFERENCE	 WOMEN SPEAKERS
BIO-Europe (2013)	19.0%
BioPharm America (2014)	18.0%
Sachs Conference 2014	13.6%
J.P. Morgan Annual Healthcare Conference (2013)	7.4%
Jefferies Global Healthcare Conference – London (2013)	7.0%
FT Global Pharmaceutical and Biotechnology Conference – 2103	4.9%

Figure 15 / Women seen speaking at conferences less frequently

Leveraging the 'right network'

The importance of having the 'right network' was expressed over and over again. Interviewees typically corroborated the widely-held view that women are not as well networked as men. There was also the indication that it is 'easier' for men to network with men and for women to network with women. Accounts were given of senior women missing out on 'what goes on behind the scenes' within leadership teams due to all-male socialising. Some women felt that they were not necessarily being excluded from these social events but that because of their family responsibilities they could not attend the engagement. There were opinions from both men and women that the 'old boys network' is becoming less important. Survey data suggests that men and women are growing their networks through similar approaches, and that informal/social networking is valuable for both genders. Social media, university contacts and training programs were also mentioned by survey respondents as useful networking routes.

Figure 16 / Women and men adopting similar approaches to growing their network

The capacity of leadership roles in Not-for-profit (NFP) organisations to pave the way for board positions elicited differing opinions. A number of senior women have been advised that positions at NFPs would not aid their boardroom ambitions. This may be true as a 'CV point' but from a networking perspective a range of accounts suggest otherwise. Examples described strong relationships being formed with fellow NFP management/board, who themselves have corporate board responsibilities, which then led to a NED position. From these conversations it is clear that the strength of the relationships described was driven by the experience of working together on a focused and practical outcome which developed trust in the other's abilities. Positions on NFP leadership teams can also be good for visibility.

All networking is of course not equal. One interviewee suggested that male colleagues were more proactive at networking with high level management. Many described the importance of follow-up and of building meaningful connections, including the commitment required to do so.

4.5 Strong support for greater diversity

The prevailing view in interviews was that there has been a positive trajectory of change that continues to improve women's access to leadership positions in the sector. Some felt that a movement towards greater gender diversity could only occur 'naturally'. However, there was also frustration at the pace of change. A limited number of interviewees even believe that opportunities for women have been getting worse over the last 4–5 years.

Overall, our 530 survey respondents indicated a strong 'yes' for increasing gender diversity in leadership with 87.4% of women and 77.7% of men answering 'agree' or 'strongly agree'. This sample may not be representative of the broader view as the decision to answer the survey imposes a level of selection. Interestingly, a slightly greater number of men responded to the survey than women, indicating at least a shared level of interest in the topic across genders.



THERE IS A GREAT DEAL OF CROSS-FERTILISATION BETWEEN MY ROLES, AS AN EXECUTIVE, AS A BOARD MEMBER AND IN VOLUNTEER POSITIONS. CONNECTIONS MADE THROUGH WEST (ADVANCING WOMEN IN THE ENTERPRISE OF SCIENCE AND TECHNOLOGY) HAVE LED TO BOARDROOM OPPORTUNITIES

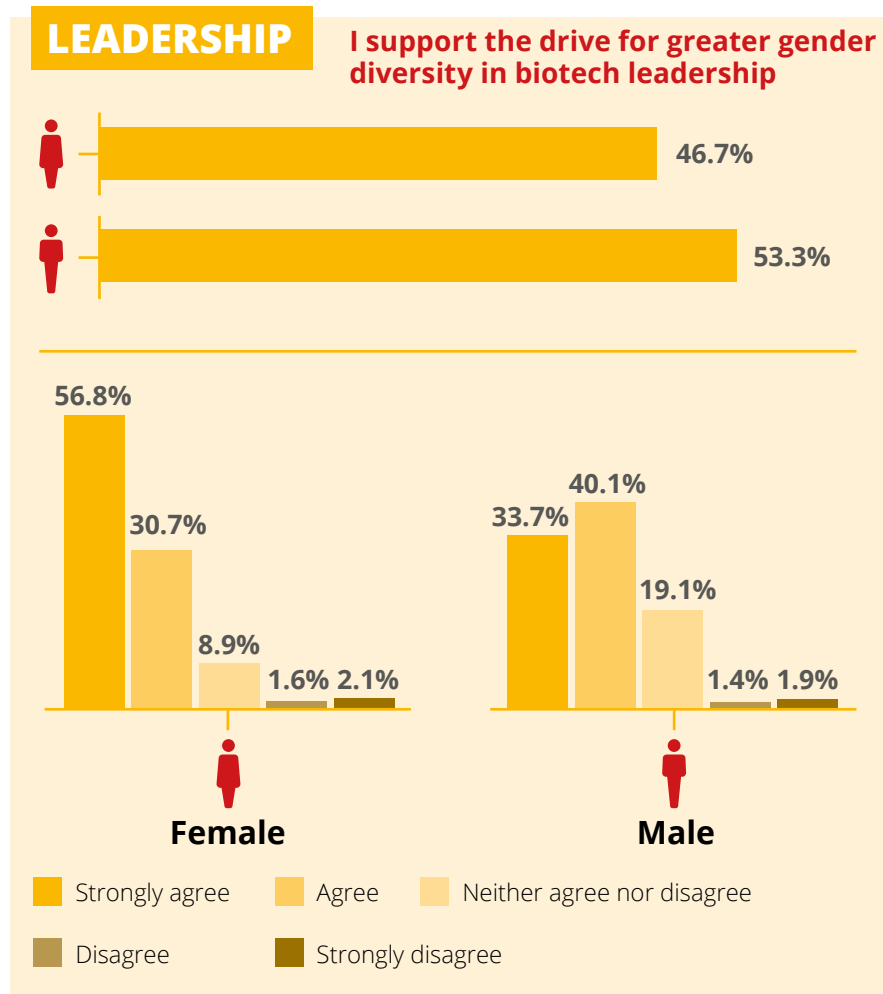
SANDRA GLUCKSMANN
COO, EDITAS MEDICINE



RESPONSIBILITY FOR INCREASING DIVERSITY MUST BE SHARED; WOMEN NEED TO BE MORE PROACTIVE, MEN NEED TO STEP-UP, THE BOARD AND HR HAVE TO TAKE A LEAD

MARK LEVIN
PARTNER, THIRD ROCK VENTURES

Figure 17 / Women and Men show equal engagement in gender discussion, with both sexes showing drive for change



Survey respondents were provided with a list of motivations to increase gender diversity in biotech leadership and could agree, respond neutrally, or disagree (see appendix). The majority of respondents, over 55%, agreed with each and every motivation outlined. 'Improved team dynamics' and 'Increased range of competencies in the management team' were recognised by the greatest number of respondents as making the strongest case for greater gender diversity. Some interviewees believed that it was important to recognise the differences between genders, to leverage these differences for maximum advantage. Others suggested that the question wasn't about what women can bring to the leadership table, but rather a route to achieve greater diversification in leadership teams to create the environment for better decision-making.

"Any attempt to increase diversity runs the risk of apparently discriminating against the majority and that causes resistance and resentment."

Anon, (M)

"I don't really experience the lack of gender diversity in biotech as a problem."

Anon, (F)



IT IS IMPORTANT TO ACKNOWLEDGE DIFFERENCES BETWEEN MEN AND WOMEN AND TO TAKE ADVANTAGE OF THESE DIFFERENCES TO BENEFIT THE COMPANY

TORBJÖRN BJERKE

FORMER CEO, KAROLINSKA DEVELOPMENT

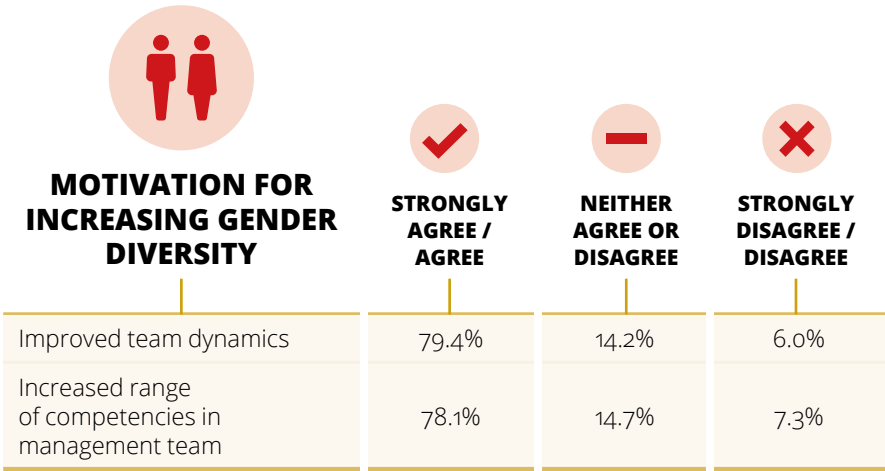


GENDER EQUALITY IS NOT GOING TO HAPPEN WITHOUT MEN GETTING MORE INVOLVED IN THE DISCUSSION. OFTEN MEN DON'T UNDERSTAND THE BIAS THAT EXISTS AND THAT BOTH SEXES PERPETUATE. MEN SHOULD BE MORE ENGAGED IN WORKING OUT HOW THAT BIAS IS EXPRESSED

PASCALE WITZ

EVP GLOBAL DIVISIONS AND STRATEGIC DEVELOPMENT, SANOFI

Table 5 / Increasing diversity improves team dynamics



“My experience with working with highly qualified women in biotech is that gender diversity increases the number of approaches a team uses to solve problems.”
Anon, (M)

4.6 Driving change

The topic of gender diversity clearly evokes strong feelings. A number of leaders contacted, both men and women who have not been named here, did not want to discuss their thoughts on the topic; fearing that this might have a negative impact on their careers or companies. Senior women are often not engaging in the conversation as they don’t want to be perceived as being successful because of their gender. Historical trends suggest that change will be minimal without a proactive approach.

“Cultural change is slow both carrot and stick need to be used. Success stories and insight from these will help to build new inspired leaders.”
Anon, (M)

A fairly unanimous view from biotech’s leadership is that quotas are unwelcome – a topic which is brought up frequently when gender diversity is discussed. Variations on this opinion, although rarely expressed, are that quotas maybe necessarily to drive change but that they should only ever be a temporary measure. In some European countries with quotas on the horizon, there was mention of companies looking to increase their boardroom diversity before the ‘supply side runs out’. Data transparency, a voluntary extension of the ‘comply or explain’ approach adopted by a number of European countries, was also not welcomed by interviewees. They believe that greater transparency of gender diversity data is not far away from quotas and that some companies would be unjustly punished by this approach – for example if they are a chemistry-focused biotech (which has a male-heavy talent pool). Some executives felt that targets would be helpful.



IT IS DIFFICULT TO UNDERSTAND UNLESS YOU HAVE ‘WALKED IN ANOTHER’S SHOES’. I OFTEN HEAR PEOPLE SAYING THAT BEING THE ONLY WOMAN IN THE ROOM IS CHALLENGING AND DIDN’T FULLY UNDERSTAND UNTIL RECENTLY WHEN I WAS IN A MEETING WITH NO OTHER MEN AND REALIZED HOW IT UNEXPECTEDLY JOLTED MY SOCIAL RADAR




RUSSELL GREIG
PRESIDENT AND FOUNDER
GREIG BIOTECHNOLOGY
GLOBAL CONSULTING



IN A PREVIOUS MANAGEMENT POSITION I ADDRESSED THE IMBALANCE IN MY TEAM BY IDENTIFYING THE BOTTLENECK IN THE PIPELINE AND THEN ACTIVELY RECRUITED WOMEN INTO THOSE ROLES – THE PROCESS NEEDED TO BE PROACTIVE TO AFFECT A CHANGE

ELIOT FORSTER
CEO CREABILIS

Table 6 / Summary of gender boardroom quotas and relevant legislation in Europe and the US




 COUNTRY	 QUOTAS	 OTHER LEGISLATION
U.S.	None	The December 2009 SEC ruling requires companies to disclose how, or if, a nominating committee considers diversity in identifying new directors. 'Diversity' is not defined in the ruling and is therefore left up to the interpretation of each individual company.
France	Quotas were introduced in January 2011 and are operating on the premise that the proportion of female and male directors should not be below 20% in 2013 and 40% by 2017.	
Germany	None	The German Corporate Governance Code was updated in 2010 to include recommendations that suggest management boards should consider diversity when filling managerial posts. Proposals for boardroom quotas were drafted in 2014.
Netherlands	Legislation was introduced in December 2009 that requires gender quotas for executive and supervisory board members. However, this quota is not mandatory and instead the 'comply or explain' principle holds.	The Dutch Corporate Governance Code requires Supervisory Boards of listed companies to publish profiles of their size and composition. Targets are for 30%.
Norway	Quotas were introduced in 2005. Failure to comply, in theory, results in the dissolution of the company.	The target of 40% by 2008 was reached.
Spain	In 2007 Spain introduced the 'Law of Equality' which requires listed companies to nominate women to 40% of all board positions. There is no penalty for non compliance.	The Spanish Securities and Exchange Commission's Corporate Governance Code recommends that listed company boards include women – this follows the 'comply or explain' model.
UK	None	The UK Corporate Governance Code (as of October 2012) requires companies to report annually on their boardroom diversity policy.
Denmark	None	New regulations enacted on April 1, 2013 require Danish companies to set target figures for equal representation on boards and develop policies to increase the percentage of women in senior management. Equal representation is defined as at least 40% of the under-represented gender. There is no fine or legal obligation to reach the target figures.
Sweden	None	In 2004 a Corporate Governance code was adopted that asks companies to 'strive for equal gender distribution on the board'. Middle and large sized companies are required to disclose their % of women in top management.

Survey respondents were asked to score six approaches to increasing gender diversity. All six approaches were rated positively (likely to increase diversity>unlikely to increase diversity) as measures that would increase the number of women in leadership. Respondents identified ‘best practise and transparency in recruitment’ as the approach most likely to increase diversity, with a ratio of 6:1. A number of interviewees also felt that recruiters could do more to inform and support women in their aspirations for NED positions – for example, to better understand what they are looking for in the appointment process. Formal mentorship was also recognised as a valuable mechanism. A strongly held view was that examples of success by companies with diverse management structures would have the biggest impact.

“A conscious company recruitment policy, in combination with training of management aiming at visualising non-diverse patterns and behaviours is a good first step.”
Anon, (F)

More generally, interviewees suggested that change had to be driven by data; that a critical mass is required to gain traction; and that, perhaps controversially, a generational change in leadership is needed.

Table 7 / Recruitment practises most likely to increase gender balance

 APPROACH	 LIKELY TO INCREASE DIVERSITY: UNLIKELY TO INCREASE DIVERSITY	 DON'T KNOW
Best practise and transparency in recruitment	6:1	12.1%
Formal mentorship	4:1	15.6%
Increased speaker diversity	3:1	11.4%
Company reporting of diversity data	2:1	11.7%
Unconscious bias training	2:1	40.1%
Public statement of diversity targets	2:1	10.9%

A conflict between caring responsibilities and time flexibility/availability for work and travel was rated by both men and women as the most significant barrier to greater gender diversity. Interviewees also identified a need to make accommodation for women during child bearing years. Interestingly, in a number of small biotechs, flexible working has been rolled out although these accounts tended not to describe women in leadership roles. Executive women with children spoke of how they wanted to be ‘present’ at home and that no amount of child caring facilities could distract from this desire. As these women are successful CEO/CXOs, their choice to be a ‘present’ parent had not prevented them from being able to have a highly successful career. One senior level women described this as a choice to focus on both her career and her children, that this was achievable by ensuring strict prioritisation across work and home life. As an example, she always ensures that she is there to celebrate her children’s birthday – but that this is done on the nearest weekend when she is not travelling, and...she buys, not bakes the cake!



COMMITTING TO TARGETS IS A POSITIVE STEP. AT GENMAB WE HAVE COMMITTED TO A TARGET OF AT LEAST 25% WOMEN ON THE BOARD BY 2016- I AM CONFIDENT THAT WE WILL REACH THIS

JAN VAN DE WINKEL
CEO, GENMAB



I HAVE COMMITTED A LOT OF TIME TO ADVANCING WOMEN IN LEADERSHIP AND WHILE WE ALL KNOW THAT SENIOR WOMEN ARE VERY BUSY, I WOULD LIKE TO SEE OTHERS MAKING A MORE SIGNIFICANT CONTRIBUTION – IT IS IMPORTANT TO SPREAD THE LOAD AND PROVIDE THE EXPOSURE/SHARED EXPERIENCES OF SENIOR TALENT

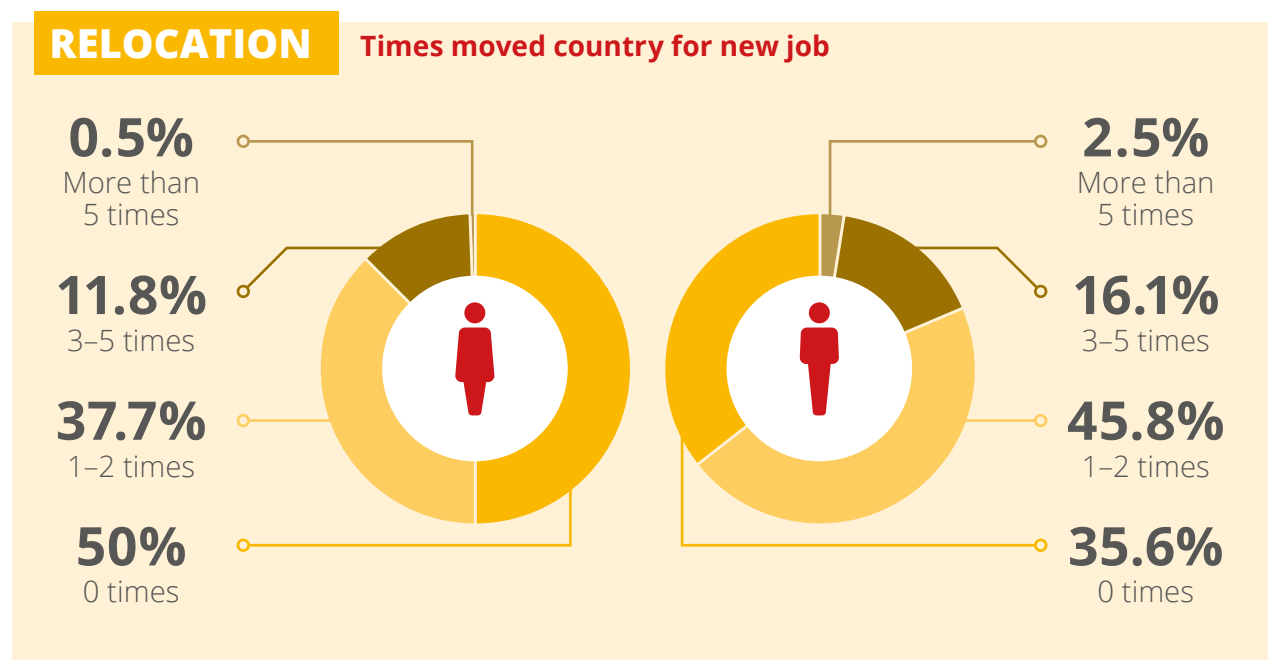
SANDRA GLUCKSMANN
COO, EDITAS MEDICINE

"I think the biggest barrier to women is the expected sacrifice to their life/work balance. Child care arrangements are always the topic of conversation but women actually want to spend time with their children not just look for someone to hand them over too! This never seems to come close to being addressed!"

Anon, (F)

Clearly the flexibility to relocate to a new country for a new job opportunity had had an impact on career trajectories. Our survey indicated that women had moved countries for a new position less frequently than men (women who haven't moved countries for new position (50%) men (35.6%), statistically significant ($p=0.003$). The decision to move countries for a lot of women interviewed depended on the flexibility of their partner, the willingness to 'uproot' the family and the corresponding stage of life. Biotech, as an industry, had very high geographical concentrations. Executive women who had positioned themselves in major bioclusters, such as Boston and the Bay Area, described the advantages that this brought – the ability to move companies without having to move geography.

Figure 18 / Men are relocating across borders more frequently than women for new job opportunities



The importance of goal setting and risk taking was emphasised multiple times. In particular, the impact of both verbalising goals and creating your own opportunities. Advice from senior women was that if there is no opportunity in your company then you can always go elsewhere and that high risk= high reward. The following quotes are excellent examples of this:



TO LEVEL THE PLAYING FIELD THE SUPPORT STRUCTURE MUST BE THE SAME FOR MEN AND WOMEN, THERE IS A NEED TO DO MORE TO PROACTIVELY ENABLE THE SPOUSES OF FEMALE LEADERS, PARTICULARLY IF THEY ARE PRIMARY CARE GIVERS

JEREMY LEVIN

FORMER PRESIDENT AND CEO,
TEVA PHARMACEUTICALS

"The single greatest factor for change is not programs, but a willingness to step up and say 'I'll do that'. To take responsibility, adapt to new styles and different cultures. Some of these new situations can be pretty risky, but sometimes the biggest risks – which could have been a disaster – end up being the biggest career enhancers. It's all about calculated risk."

Jackie Fouse, President, Global Hematology and Oncology Celgene

"Setting personal goals meant that during the conversations around my move to Celltech I firmly expressed an objective to be a director by the time I was 40. I was offered Head of research on the Celltech plc Board."

Melanie Lee, CEO, NightstarX

"I was looking for the next opportunity while at SmithKline Beecham. I lobbied to do an MBA, which was a first for someone from within the clinical part of the organisation who was not medically qualified, and then created a new role for while I was studying, liaising between clinical and business development."

Deborah Harland, Partner, SR One

4.7 Unconscious bias

Unconscious bias is not about men discriminating against women. It is about men and women discriminating against women. Research has consistently shown that women are just as biased to women as men (Brookes, 2014; Reuben, 2012). In some instances having preformed biases can be advantageous, but when biases subconsciously influence candidate selection, suboptimal decisions are made. Numerous social experiments have been performed that demonstrate simply changing the gender on a resume/CV impacts upon the decision to hire a candidate (Moss-Racusin, 2012). Unconscious bias training, courses that are designed to help people identify their own biases and act upon them, are increasingly being employed by large corporates.



The majority of leaders interviewed had not heard of unconscious bias training. Those that had did not consider this focus a significant priority for the company to commit resources. Biogen Idec did recently run an unconscious bias training program with the company's leadership which was very well received. 40% of our survey respondents were unsure about unconscious bias training and its potential impact on gender diversity. And yet when the 76 open comments provided by survey respondents were analysed, 25.3% of comments referred indirectly to forms of unconscious bias.



IF A WOMAN HAS BEEN ON MATERNITY LEAVE FOR 3 YEARS, THERE IS THE IDEA THAT THEY HAVE LEARNED NOTHING – THOSE YEARS ARE DISCOUNTED AS OF VALUE FOR FUTURE EMPLOYMENT. IT IS IMPORTANT TO UNDERSTAND THE SKILLS THAT THEY HAVE ACQUIRED DURING THIS PERIOD AND HOW THEY CAN BE EFFECTIVELY EMPLOYED

MELANIE LEE
CEO, NIGHTSTARX LTD

Table 8 / Survey respondent's comments grouped by category

 RESPONSE	 FREQUENCY
Unconscious bias	25.3%
'Quality first' argument	19.3%
Work-life balance / maternity	18.1%
Utility of networks	12.0%
Low visibility of female profiles	4.8%
Other	20.4%

Due to an increased focus on unconscious bias by companies such as Google, who have adopted a data-driven approach, as well as a wealth of academic research, methods to reduce unconscious bias and build a platform for better decision-making are emerging. The common theme across these approaches is increasing the analytical component of decision making while reducing the 'judgement' component.

"At our 2013 Executive Leadership Conference, we tackled the subject of unconscious bias as an important way to improve our global competence and it turned out to be the best HR training I've ever participated in. Unconscious bias is the subtle but often detrimental tendency to make quick judgments based on information stored in our brains below the level of our conscious awareness. This means that our decision-making about people is often fraught with first impressions that can be entirely off base. If you want to make effective decisions, you have to acknowledge the existence of these biases and make a concerted effort to notice and counteract them. This not only increases the global competence of leaders but it also makes organizations far more fair and equitable."
George Scangos, CEO, Biogen Idec

Data suggests that individuals and organisations can begin to reduce unconscious bias in a hiring or promotion process by doing two things. The first involves laying out a structure that is subsequently adhered to, and the second, increasing accountability in decision making (Google Ventures, 2014; Uhlmann, 2005). In the first approach, executives who are making the hiring decision write down the specific skill sets that they believe are required to do the job; simply making a list which should then be referred to throughout the hiring process. Ideally the list of skills and experiences would have been compiled by a group of people making the hiring decision – it is very important that this is done by the decision makers, not HR. Each candidates' profile and performance in the interview is then applied against the requirement list – everything that is not on that list and was not identified when initiating the process should not be considered. The decision is then made based on the requirements for the position and not influenced by personal bias. The second approach is about increasing accountability for a decision. The CEO or executive team describes the *specific* reasons why one candidate has been selected and why the others have not. Even if this isn't a group decision, even writing down a decision has been shown to reduce bias in decision-making. These approaches cost nothing to implement and are accessible to all.

Innovative ways to eliminate bias throughout the recruitment and appointment process are being developed. Research has shown that language in job descriptions and resumes create bias. 'Unitive' (www.unitive.works) is a recently founded California-based company that is developing software to eliminate gender bias at various stages in the recruitment process. One example of the software that Unitive is developing identifies gendered words in job descriptions and suggests ways to reduce biased language. They believe, and have research to support the concept that making the process gender-neutral also increases the engagement of minority groups.

Figure 19 / Gender-biased language in job descriptions identified by 'Unitive' software

Applying the expertise of **leading** scientists to the integration of insights from cancer genomics with innovative capabilities in synthetic chemistry and tumor biology to pursue the most promising current opportunity in cancer therapeutics: patient-based, genomics-driven, small molecule drugs.

The Head of Project and Program Management will be **responsible** for the hands-on management of early stage research programs, as well as **proactively** seek out interesting and strategic partnerships with other small biotechs and academia and integrate those into existing programs. Will work with consultants, academic collaborators and outside vendors to insure all scientific integrity on all aspects, as well as milestone management. This **individual** will also be tasked with liaising with our strategic alliance partners, interfacing at scientific level as well as on a contractual business level.

Principal Duties and Responsibilities:

- Develop and **lead** cross functional project teams through the creation and execution of high quality Integrated Development Plans.
- Utilize project management best practices in the development, planning, alignment, initiation, execution, control, and closing of projects.
- Act as internal champion, representing the various project teams and programs at **leadership** team meetings.
- Participates in or **leads** the project reviews; participates in budgeting and project prioritization, as well as other initiatives.
- **Responsible** for project performance, risk management, administration, financial management and issue resolution in the project teams is required.
- Planning and directing schedules and monitoring budget/spending, and ensuring consistent practices throughout all phases of the project life cycle.
- Drive the development and manage the execution of high quality, integrated cross functional plans for a variety of diverse projects.
- **Actively** manage the non-scientific aspects of research collaborations (such as meeting timing and arrangement, transfers of compounds, publications and IP issues).
- Ensure that scientific reviews and milestones are appropriately assessed in a timely manner by the scientists for whom the contract was made.
- Track progress and work with external partners to ensure that the company's requirements regarding scientific **objectives**, IP ownership, legal matters and funding are met.
- Initiate, lead and manage re-negotiations and terminations as necessary.
- Negotiate with external partners to ensure that the company's requirements regarding scientific objectives, IP ownership, legal matters and funding are met.
- **Support** and, as required, **lead** a multifunctional team (including representatives from the Legal, **Intellectual** Property and Finance departments and the transaction sponsor) to develop a set of preferred terms for each Agreement.
- Collate comments on agreements under negotiation from internal parties (including Finance, Legal, IP).

Job Qualifications:

- Ideal candidate will have Ph.D. in a discipline relevant to **biological** sciences, and 8 or more years of experience in drug discovery and development, MBA preferred.
- Candidate must have proven success in **leading** teams through multiple IND (Investigational New Drug) application filings.
- Previous experience **leading** oncology focused research programs.
- Must have exceptional organizational skills, including expert competence in MS Word, Excel, PowerPoint, and Project. Proven ability to develop and manage to complex project plans, timelines, budgets, and critical path is required.
- Must have demonstrated successful ability in building and driving cross-functional working teams for successful preclinical, IND and early clinical activities, negotiating, and gaining consensus.
- Candidate must possess excellent prioritization, resource planning, and communication skills, as well as the ability to share complex information with a diverse audience at all levels across the organization.

Source: Unitive (www.unitive.works). Blue = 'male' gendered words, Pink = 'female' gendered words.

5

CONCLUSIONS AND RECOMMENDATIONS

#biotechXY



5.0 Conclusions and recommendations

5.1 Conclusions

Female directors hold around 10% of the total boardroom seats in biotech's SMEs, a proportion well below that of FTSE 100 (20.7%) and Fortune 200 companies (17.3%) (Vinnicombe, 2014; Corporate Women Directors International, 2014). In big biotech, 19.2% of directorships are held by women. This trend, of SMEs featuring a lower proportion of female directors than large corporates, is mirrored in other sectors (Wilkins Kennedy, 2014). The majority, 59.9% (Europe) and 52.0% (US), of biotech SMEs have an all-male board, a statistic that plainly states the lack of gender diversity in leadership. As does the existence of all-male leadership teams in big biotech, where women are struggling to make it to the top positions; 13.9% of big biotech's executive teams are female, which is lower than the comparative figure for biotech's SMEs. Within Europe, countries such as Germany and the Netherlands, fall well below the region's average with less than 5% of boardroom seats occupied by women. Even in Scandinavia, which is often described as 'gender neutral', just 15.5% of board directors within the region are female. The numbers outlined here describe a landscape that is heavily male dominated at the top.

Most people agree that intentional gender discrimination in the sector has, on the whole, disappeared. What does exist however is a complex web of influences and conditions that skew the leadership pipeline and create a system that is, in essence, anti-meritocratic. Unconscious bias has been identified as playing a large role in the continuation of such an anti-meritocratic system. Our research has shown that the majority of biotech leaders are not yet implementing procedures to minimise the influence of unconscious bias despite the wealth of research available that demonstrates the benefits of putting in place such processes at a company wide level.

The research described here depicts a sector where men and women share the same ambitions for seats at the boardroom table, and yet women are much less likely to be identified and entered into the appointment process. There is a perception that the leadership environment is one that is not attractive to women. 'The perceived culture of leadership teams acting as a deterrent to women' was identified as one of the most significant barriers to greater gender diversity by both male and female interviewees and survey respondents. Similarly, our interviews suggested that women are often put off working in venture capital: an industry that plays a major role in defining biotech's leadership. Enhancing our understanding of the major forces that shape decisions at the top of the sector is an important step toward addressing gender imbalance.

The case studies featured in this report collectively demonstrate a strong desire for change and an evolving attitude within the respective companies, placing gender diversity high on the business agenda. The initiatives described here have been pioneered by senior leaders who believe in the benefits of diversity; leaders who are willing to stand up and question the status quo. Overall, this research received a high level of support from leaders in biotech, pharma and the investor community. What is now vital is that this support continues and grows around the topic to enact positive change.

5.2 Recommendations

As a result of our research we present the following recommendations, aimed at the stakeholder groups that we believe have the biggest potential to influence and drive change:

5.2.1 CEOs and Chairs

- **Perform deep analysis of your recruiting and promotion practises.** Evaluate your approach to recruiting and promotion. Take steps to ensure that the natural and unconscious biases that we all have are not causing you to make suboptimal hiring decisions:
 - i. Structure – that the required skills sets and expertise is defined and applied to selecting the ‘right’ candidate, seeking to eliminate parameters that do not impact on job performance criteria.
 - ii. Group decisions – where possible ensure that candidate selection is made based on the opinion of a group, not an individual, it is important to include both men and women in the decision making process.
 - iii. Accountability – accountability in the decision making process is enforced when appointment decisions for and against candidates are verbally expressed and explained to others in the team.
 - iv. Feedback – Ensure candidates and employees receive constructive and detailed feedback on the process and decision.
- **Evaluate the ability of your company to provide additional support, training and opportunities for female talent.** Research, including that which is presented in this study, has identified areas in which women would benefit from additional support to succeed within the current male-dominated environment. Acknowledge that women and men will often benefit from different approaches and take the time to determine what you can bring into your company to develop senior and high potential women. Mentoring, for example, is something that both male and female CEOs/leaders should ask themselves whether they are able to provide to talented women. Paving the way for senior women to access external board opportunities may be another route.
- **Drive the debate on increasing gender diversity in leadership.** Be vocal on this topic and bring the discussion to your leadership team and boardroom meetings. Provide an avenue for this discussion within the context of your company and engage with the topic more broadly. If you are unconvinced by the arguments for mixed teams and greater diversity then bring your perspectives to the conversation.

5.2.2 Investors

- **Identify how venture capital as an industry, and your company in particular, could be made more attractive to women.** If you have struggled to find suitable female candidates for partnership in the firm, or if women have been turning down opportunities, seek a neutral, third party perspective on the challenges and major influencing factors. Acknowledge that you have a major influence on the ability of the sector to increase gender diversity in leadership. Contribute to collective thinking on the topic co-ordinated by professional organisations such as the National Venture Capital Association and European Private Equity Venture Capital Association.
-

- **Apply structured performance evaluation of your boards, and in your hiring decisions.** Structured evaluation is an effective tool in reducing bias and optimising the decision-making process. This does not require deviation from the typical customised approach, merely an increased application and communication of criteria by which success is measured. Apply lateral thinking to capability assessment.
- **Enable your portfolio companies to identify the best candidates ahead of your exit from the boardroom.** Ensure that the appropriate processes, governance and timing is in place so that critical analysis of NED candidates can be performed, and is implemented, as you rotate off the board.

5.2.3 Recruiters

- **Evaluate each stage of your recruitment process for gender bias.** Perform critical analysis of the various phases within the recruitment process to identify and address bias. Consider the language used in job descriptions, the approach employed to identify candidates, how job resumes are screened, the language and approach used to reach out and interview candidates. Familiarise yourself with the research to optimise your internal processes.
- **Work with senior and high potential women to demystify boardroom recruitment.** The sector would benefit from a greater understanding of the boardroom appointment process. Provide opportunities and resources to explain and, ideally discuss, what you are typically looking for, how this is approached and what candidates can do to better position themselves for their first non-executive director role. Real-life examples are valuable in this context.
- **Look harder to find suitably qualified and experienced women.** Women who meet the criteria for leadership positions are out there. Make the commitment to break the boundaries of your typical search and consider new approaches to identify female candidates.
- **Educate clients on the competencies of leadership and evolving requirements.** Work to educate and challenge your clients with regard to styles of leadership and the breadth of the talent pool. Provide advocacy for greater gender diversity in leadership.

5.2.4 High potential women

- **Take a strategic approach to your career.** Continually evolve your skill-set so that it remains highly relevant now and for the future of the sector. Seek information and feedback from a broad range of stakeholders who can help you understand the direction of the marketplace in which you work and the vital experience and skills. This can also help you construct long-range career plans which you can manage effectively, seeking to promote your unique skills and experience, while also developing necessary areas that will heighten your value as a leader. It is important to set clear ambitious goals and verbalise these. Act on opportunity and explore all possible avenues for progression, canvassing broader perspectives on the career value of opportunities and the risk/reward assessment.
 - **Build and leverage your network.** Your network is a critical factor for your success. Commit the time required to develop meaningful connection, both internally and externally, focus on what you can gain and what you can offer.
-

- **Be aware of the challenges that face women moving into top leadership and contribute to improving the status quo.** Familiarise yourself and learn from the experiences of others, including women at your level and those that have made it into top leadership positions. Contribute to increasing gender diversity by supporting initiatives and introducing key learnings to your manager(s). There is clearly a fine balance to be found between progressing the 'issue' and developing your careers – ensure you do the latter but also consider the bigger picture and how you can contribute.

5.2.5 Corporate governance influencers, the media, conference organisers and trade organisations.

- **Corporate governance influencers.** Financial regulators such as the Securities and Exchange Commission (SEC) as well as corporate governance thought leaders and solution providers should enter a consultation process with the venture capital community over good investment governance to include a gender diversity measure.
 - **Conference organisers.** Track male:female data and actively look to increase the number of female speakers at events. Ensure conference organiser committees include a significant proportion of women.
 - **The media.** Be part of the solution not part of the problem. Raise awareness of the topic, feature female leaders for their accomplishments and be highly cognisant of language differences employed to describe male and female leaders.
 - **Trade organisations**
 - **Review programs that promote greater diversity and determine whether initiatives can be crowdsourced for SMEs in your region.** SMEs have limited resources and personnel to deliver leadership development initiatives. Industry associations are well placed to coordinate between members, pooling resources and expertise, to facilitate program delivery.
 - **Organise meetings with local CEOs/chairs to discuss increasing gender diversity in leadership.** Our study demonstrated that a large number of male and female CEOs are willing and keen to engage in this discussion. Facilitate this conversation in the context of the local region, address specific company needs and identify practicably implementable initiatives.
 - **Actively promote examples of success linked to diverse leadership.** Our interviewees suggest that examples of success, linked to diverse leadership, are one of the most effective methods for enacting change. Identify and promote success stories that illustrate the power of mixed teams.
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6

APPENDIX

#biotechXY



6.0 Appendix

6.1 References

- Brooks, A. W., L. Huang, S. W. Kearney and F. E. Murray (2014). 'Investors prefer entrepreneurial ventures pitched by attractive men.' *Proceedings of the National Academy of Sciences of the United States of America* (Proc Natl Acad Sci USA) 111(12): 4427–4431.
- Corporate Women Directors International (2014). 'Women Board Directors of Fortune Global 200- 2004-2014.'
- Credit Suisse. (2012). 'Gender diversity and corporate performance.'
- European Commission – Directorate-General for Research and Innovation (2012). 'She Figures 2012: Gender in Research and Innovation – Statistics and Indicators.'
- Freedman, J. (2010). 'Women in Medicine: Are We "There" Yet?', Medscape.
- Google Ventures. (2014). 'Unconscious Bias @ Work.' Retrieved October 6th 2014, from HYPERLINK "<http://www.youtube.com/watch?v=nLjFTHTgEVU>" www.youtube.com/watch?v=nLjFTHTgEVU.
- Mamiit A. (2014). 'Google suffering from poor gender diversity: Blame it on "unconscious bias".' *Tech Times*.
- McKinsey & Company (2007). 'Women Matter: Gender diversity, a corporate performance driver.'
- Moss-Racusin, C. A., J. F. Dovidio, V. L. Brescoll, M. J. Graham and J. Handelsman (2012). 'Science faculty's subtle gender biases favor male students.' *Proc Natl Acad Sci USA* 109(41): 16474–16479.
- National Venture Capital Association (2011). 'Diversity Increases Among Newer Venture Capital Professionals While Gender Composition of Industry Remains Largely Unchanged.' NVCA and Dow Jones VentureSource Release 2011 Venture Census Data.
- Reuben, E., P. Sapienza and L. Zingales (2014). 'How stereotypes impair women's careers in science.' *Proc Natl Acad Sci U S A* 111(12): 4403–4408.
- Thomson Reuters. (2013). 'Mining the metrics of board diversity.'
- Uhlmann, E. L., and Cohen, G. L. (2005). 'Constructed Criteria: Redefining Merit to Justify Discrimination.' *Psychological Science* 16(6): 474–480.
- Vinnicombe S., Doldor E., Turner C. (2014). 'The Female FTSE Board Report 2014.'
- Wilkins Kennedy (2014). 'Largest Businesses Most likely to appoint female directors.' Accessed 10th October 2014.

6.2 Methodology

6.2.1 Biotech company landscape – data analysis

'Biotech' company inclusion criteria for sector analysis;

- Companies with 1,000 employees or less
- Greater than 10 employees (verified or estimated)
- Management team of three people or more
- Not a subsidiary company
- Therapeutic or diagnostic focus

Biotechgate database was used to identify the 1,491 (non-subsidiary) therapeutic and diagnostic companies in Europe, California and Massachusetts. Companies were then analysed individually using publically available information to determine fit within

inclusion criteria. 349 companies in Europe and 300 companies in California and Massachusetts fell within the inclusion criteria. Total number, and number of women on the board and leadership team numbers was recorded. Leadership teams included C-suite, EVP, VP and Director/Head as represented by individual companies.

6.2.2 Interviews

Candidates for interview were selected based on notability and position in the sector, as well as to achieve a spread in geography, company size and role. 70% of interviewees were women, 30% men. Interviews were 'topic guided' – based around a framework but allowing for in-depth discussion to be focused around interviewee perspectives. Interviews were typically 20–60 minutes long and conducted via telephone. 60 leaders were interviewed in total. Interviewees were informed of the nature of the research study prior to the discussion and that their responses were anonymous.

Figure 20 / Interviewees by geography

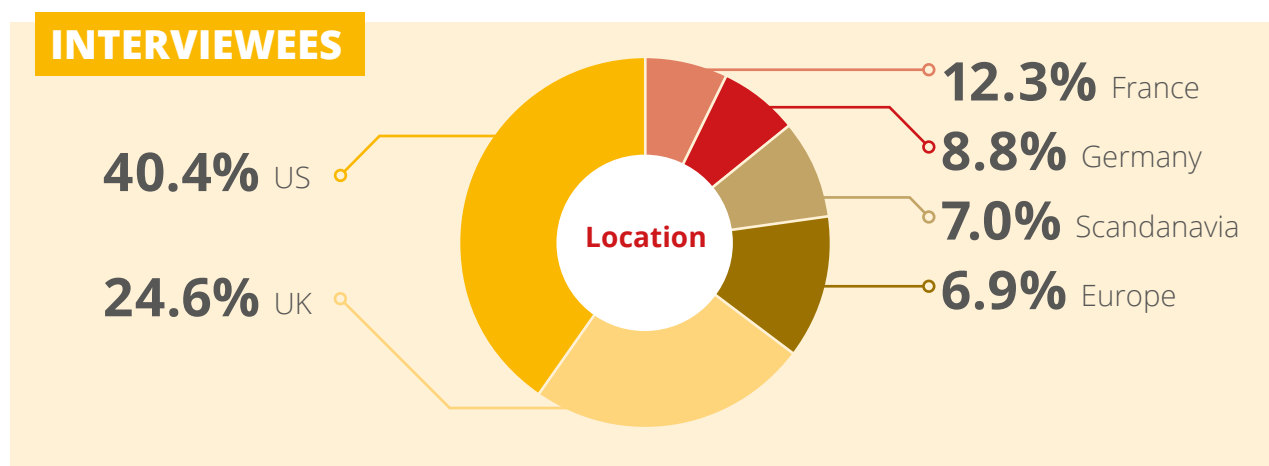
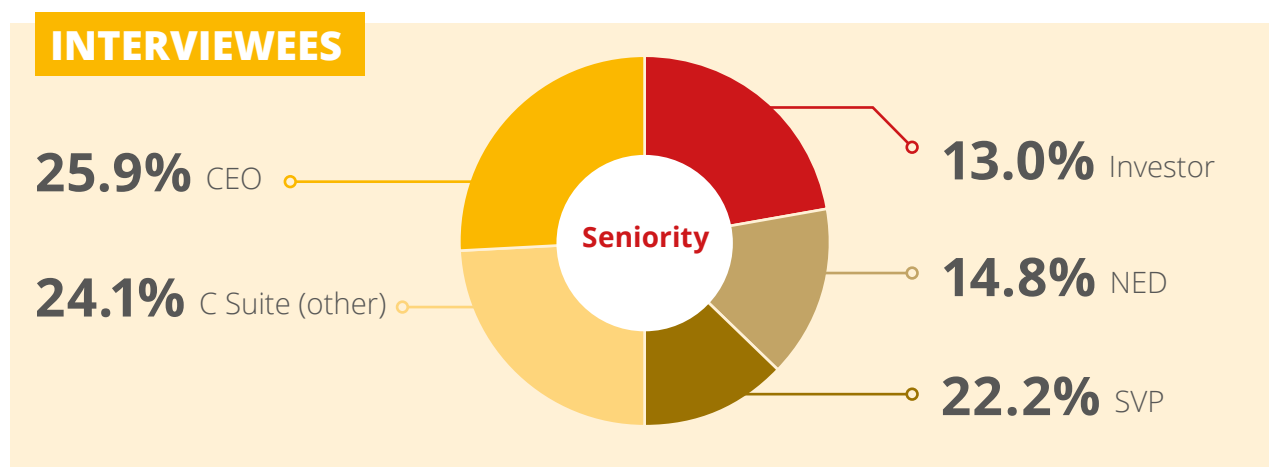


Figure 21 / Interviewees by seniority



6.2.3 Survey

The survey was designed to address hypotheses driven by the interviews and was delivered via SurveyMonkey. All responses were completely anonymous. Survey respondents answered a core group of questions with additional sections specific to the seniority and role of the respondent. The survey questionnaire can be found at: <http://www.liftstream.com/about-the-survey.html#.VDwWJctowy8>. The survey link was distributed via Liftstream's internal database, via biotech associations in the UK, mainland Europe and in the US, as well as being circulated via LinkedIn and Twitter. 530 independent respondents answered the questionnaire. Data analysis was performed using the SurveyMonkey platform. Statistical analysis was performed using Graphpad Prism software.

Table 9 / Survey respondents' geographical distribution

ANSWER OPTIONS	RESPONSE PERCENT
UK	25.2%
US – Massachusetts	6.9%
US – California	4.9%
US – Other	7.6%
France	5.4%
Germany/Austria	8.1%
Switzerland	13.2%
Italy/Spain/Portugal/Greece	3.7%
Benelux/the Netherlands	8.6%
Scandinavia	8.1%
Middle East/Africa	0.5%
Asia	4.4%
ROW	3.4%

Figure 22 / Survey respondents' distribution by seniority (self-indicated)

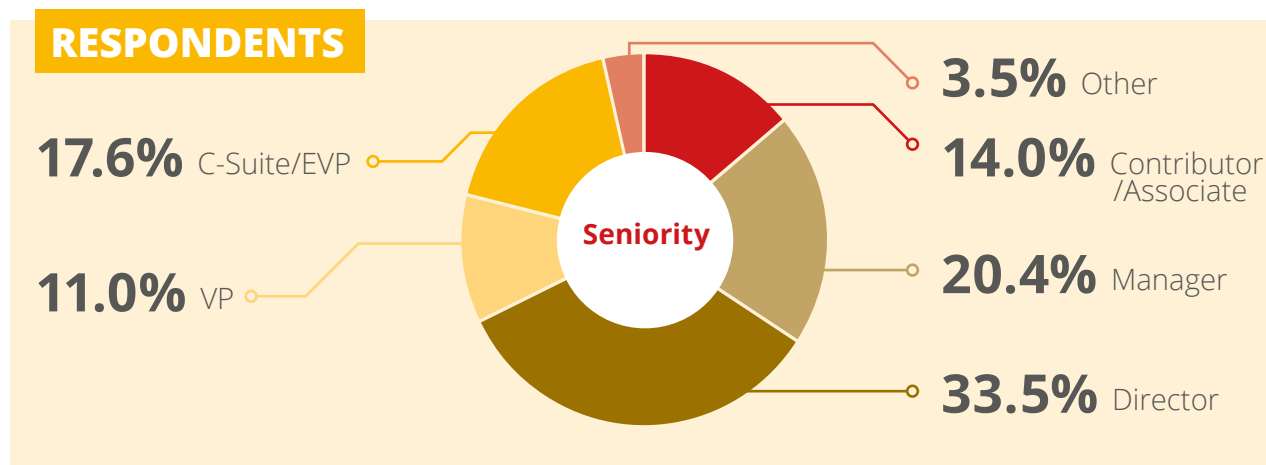


Table 10 / Survey respondents by sector (optional question)

SECTOR	RESPONSE PERCENT	RESPONSE NUMBER
Biotech	39.0%	159
Pharma	32.4%	132
Venture Capital	2.2%	9
Investment (other) and Finance	0.7%	3
Academia and Government	3.9%	16
Consulting	12.3%	50
Other (please specify)	9.6%	39
Total		408

Table 11 / Survey respondents by age (optional question)

SECTOR	RESPONSE PERCENT	RESPONSE NUMBER
Under 35	14.7%	60
35 to 44	29.4%	120
45 to 54	35.3%	144
55 to 64	17.2%	70
65 to 74	2.7%	11
75 or older	0.0%	0
Prefer not to answer	0.7%	3
Total		408

Acknowledgments

Survey Distribution: EuropaBio, BioIndustry Association, MassBio, OneNucleus, OBN

Liftstream – Executive Recruitment Services – Life Sciences

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavour to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

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