Pharmaceutical Research & Development Workforce Trends
The War for Talent

The War for Talent may rage or simmer, but it is always here

- Any position from executive level to frontline employee that is difficult to fill becomes a potential “battleground”
- Firms with better talent will be more successful than firms with lesser talent
- There is a lot at stake in our getting this right!

Shrinking Scientific Workforce

- Numbers enrolled in science at Universities in the US are declining, while demand for their skills and knowledge in the pharmaceutical research community is increasing

Brain drain

- 30 years ago the US produced the majority of the world’s doctoral degrees
- In 1999 Europe surpassed US production of PhDs in science & engineering by more than 2,000 scholars
- Asia is rapidly closing the gap and is expected to surpass the US over the next few years

Mobile Workforce

- Students studying science in the US return in increasing numbers to their homelands in Asia where job opportunities abound

Diverse Workforce

- There are more generations in today’s workforce than ever before which can result in members of three generations (Y, X and “boomers”) working together
- Issues like the “grey ceiling” are now happening.
Pharmaceutical Workforce Trends

Percentage Growth of Selected High-Skilled Talent Segments in the Pharmaceutical Industry (projected 2000-2010)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Industry Growth</td>
<td>23.8%</td>
</tr>
<tr>
<td>Biological Technicians</td>
<td>26.7%</td>
</tr>
<tr>
<td>Attorneys</td>
<td>29.6%</td>
</tr>
<tr>
<td>Biomedical Engineers</td>
<td>40.3%</td>
</tr>
<tr>
<td>Medical Scientists</td>
<td>42.5%</td>
</tr>
<tr>
<td>Chemists</td>
<td>42.5%</td>
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</tbody>
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Enrollments in science programs at colleges and universities have decreased dramatically in recent years.

- As the need for highly-skilled labor continues to grow within the pharmaceutical sector, organizations will find it increasingly difficult to find needed talent.
  - The supply of talent is decreasing while the demand for talent is increasing.
- Scarcity of high-skilled talent will force pharmaceutical organizations to strengthen their focus on talent attraction and talent retention.
Pharmaceutical Industry Trends

• Continued rising costs of healthcare in all markets
• Government initiatives, e.g., increasing regulation, price controls
• Slow growth and earnings expectations of markets and investors
• Soaring marketing costs, questionable ROI, R&D Productivity challenges
• Patent expirations; threats of generics
Pharmaceutical companies offer…

• Opportunities to work on exciting and ground breaking research
• Access to resources and world class facilities
• A chance to work with some of the brightest individuals in science on multidisciplinary teams
• The ability to make a difference in people’s lives
Pfizer R&D Talent Needs

- Our projected needs within the Sciences are:
  - 75% BS/MS
  - 25% PhD/Post Doc
- Average yearly hiring ~ 500:
  - Research, PDM, WWCM, DSRD, and Pharm Sciences
- Our current hiring profile:
  - 70% experienced
  - 30% new/recent graduates/Post Docs
Pfizer R&D Talent Needs

• Increasing focus on Biology versus Chemistry

• In the future we hope to see our University BS/MS level hiring increase but that is contingent upon:
  – Students graduating with ‘hands-on’ lab experience
    • BS/MS level student currently graduate with lab experience from course work but should be seeking additional research experience while in college (e.g., research projects, internships).
  – Immigration reform
    • We do find foreign national students who have the experience we desire but we are hampered by immigration laws

• Increased focus on science graduates from US Universities
Addressing These Challenges….

Talent needs are outstripping talent availability

• What can we do to make science exciting again?

• What are the roles government, academia, and industry can play?