

Section 1. Explore Motives & Skills Needed

Content and references that were presented under the “Key Points” and “Challenge” tabs.

1. Motivations for Starting a Business

Work Options for Life Scientists Include Entrepreneurship

Starting a business is a potentially exciting and rewarding career choice alternative for life scientists instead of working in an academic setting or for others in an industry job. Few tenure-track university positions are available, and only a minority of scientists hired achieve tenure (Wosen, 2022; Boone, 2022). Drawbacks of some industry jobs include pressure to achieve high quotas, repetitious work, and not being able to follow your own vision. Keep in mind that you have a third option of starting a business.

Although startups typically involve a lot of hard work, especially at the outset, many scientists find them a rewarding career path. They describe an exciting work environment—from working closely with a team that feels passionate about the work and from making a difference in people’s lives through their discoveries. Other advantages include the potential for . . .

- more autonomy in decision-making
- your ideas having more impact
- higher income eventually.

Steps to a Startup will help you explore the possibilities!

References

Wosen J. ‘The tipping point is coming’: Unprecedented exodus of young life scientists is shaking up academia. *STAT*. November 10, 2022.

Boone A, Vander Elst T, Vandenbroeck S, Godderis L. Burnout Profiles Among Young Researchers: A Latent Profile Analysis. *Frontiers in Psychology*. 13; 2022.

Tips from *Motivations for Starting a Business*

- When thinking about your career goals, consider what impacts you would like your work to have.
- Take advantage of the many opportunities available to women-owned businesses, such as government contract money set aside for businesses owned by women, tax incentives, loan guarantees, and training and mentoring opportunities.

Challenge from *Motivations for Starting a Business*

Drag list items into the order of importance that is true for you, to gain insight into what might motivate you to start a business. Put the most important at the top and the least important at the bottom.

- 1 ⇅ Answer to yourself. Set your own rules.
- 2 ⇅ Explore new ideas without getting permission.
- 3 ⇅ No limits on what you can do or how much you make.
- 4 ⇅ Help others; make a difference.
- 5 ⇅ Create an enjoyable work environment that meets your needs.
(Make your own corporate culture.)
- 6 ⇅ Have more control over the impact of bias against women on your ability to fully use your skills and ideas in your work.

Question for Reflection:

What other motivations do you have to launch a startup? How does starting a business fit with your other life goals?

References

Bester A. Start Your Business: 7 Reasons To Work For Yourself. GetSmarter Blog. April 12, 2022.

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Waltower S. The No. 1 Reason Most Entrepreneurs Start Businesses. *Business News Daily*. February 21, 2023.

2. Life Impact of Starting a Business

To learn more about life impact, be sure to read some of the many real-life stories we have gathered on our webpage Business Success Stories from Women Life Scientists. Many of them describe life impact, in addition to talking about their success.

Being an Entrepreneur Can Help You Grow as a Person

The skills involved in being a successful entrepreneur can spill over and improve other areas of your life. You may become. . .

1. More self-motivated after achieving a series of benchmarks, having more responsibility, and holding yourself accountable.
2. Better at compromise and communication from working hard at it with a partner or cofounder.
3. More understanding of others by putting yourself in the shoes of your employees and partner.
4. Better at systemic thinking from being responsible for all aspects of the business and viewing problems from different perspectives.
5. More confident due to overcoming a fear of taking risks, learning new skills, meeting the demands of your business, and navigating challenges as they arise.
6. More content from aligning your work with your passions and most important values.

(Bester, 2022; Waltower, 2023)

References

Bester A. Start Your Business: 7 Reasons To Work For Yourself. GetSmarter Blog. April 12, 2022.

Waltower S. The No. 1 Reason Most Entrepreneurs Start Businesses. *Business News Daily*. February 21, 2023

The Potential Personal Costs of Starting a Business

Especially in the early stages, your business may have the following personal costs:

1. **Heavy Time Commitment** – Starting a business requires a major time commitment. However, many scientists say that if you are doing what you love, this part does not matter as much.
2. **Strained Relationships** – Long hours, fatigue, emotional strain, and financial uncertainty are common and can strain relationships. Life partners may feel neglected. Parents may feel conflicted about time not spent with their children.
3. **Financial Uncertainty** – Personal income is often uncertain initially. You may have to get a business loan or work at a paying job in your free time while starting your business.

(Insights Success, 2023)

These “costs” tend to ease as the business starts to succeed and more of the benefits are realized.

Reference

How Does Running Your Own Business Affect Your Personal Life? *Insights Success*. 2023

Tip from *Life Impact of Starting a Business*

Talk with your life partner and family about the potential impact starting your business could have on their lives.

Challenge from *Life Impact of Starting a Business*

Meet Some Fierce Role Models

Read about one or more of the [“Fiercest Women in Life Sciences”](#) (this link for another website, *Fierce Pharma*, opens in a new tab), many of whom are successful entrepreneurs. They share stories of how they forged new ways of doing things and faced challenges and provide tips for other women based on their experience.

Reference

Park A. [2022's Fiercest Women in Life Sciences](#). *Fierce Pharma*. November 14, 2022.

Before looking at this website, Biostartup Advice, how motivated were you to start your own business?

- Not Interested at All
- Mostly Not Interested
- Neutral
- Interested
- Very Interested

3. Skills Needed to Start a Business

Characteristics of Successful Biotech Entrepreneurs

Common characteristics of successful biotech entrepreneurs include being . . .

1. Focused and able to adapt single-pointed attention to each situation.
2. Creative with science, product, or service ideas and with challenges.
3. Flexible.
4. Willing to take risks and good at managing risk.
5. Self-motivated.
6. Visionary and good at communicating vision.
7. Passionate and persuasive.
8. Persevering.

(Biolyse, 2018)

Consider partnering with someone who complements you in characteristics associated with success.

Reference

Biolyse. [How To Start A Biotechnology Company Fast](#). Biolyse. August 21, 2018.

Skills Needed to Start a Business Successfully

A broad range of skills is needed to start a business and build it successfully. The skills that are needed differ for each stage of business development and for each industry. Most skills can be learned as you go, or you can hire someone who has the skills you need.

Business Skills Needed

- Leadership
- Business communication, pitching, and negotiation

- Problem-solving
- Networking
- Project planning and management
- Hiring personnel and delegation

Financial Skills Needed

- Budgeting, managing cash flow, basic accounting, keeping books and balance sheets
- Working with invoices and purchase orders
- Managing tax accounts and working with tax professionals
- Investing
- Finding and communicating with investors
- Borrowing and understanding credit
- Marketing, prospecting potential customers, sales, terms of payment, and customer service

References

Froshauer S. [Careers at Biotech Start-Ups and in Entrepreneurship](#). *Cold Spring Harb Perspect Biol*. November 1, 2017;9(11):a032938. [doi:10.1101/cshperspect.a032938](https://doi.org/10.1101/cshperspect.a032938).

Harvard Business School Online. [Accounting for Entrepreneurs: 5 Skills You Need to Know](#). 2018.

Rojas N. [The most important financial skills every entrepreneur should possess](#). Millo. 2018.

Young Entrepreneur Council. [11 Crucial Skills Every Small Business Owner Needs From Day One](#). *Forbes*. January 21, 2020.

Tips from *Skills Needed to Start a Business*

You will need many mentors to learn the different aspects and phases of starting your business. Ask for anticipatory advice for the next phase of your business development.

Be proactive in developing the skills you need or in finding someone to supply those skills before you need them.

Challenge from *Skills Needed to Start a Business*

Below are lists of business and financial skills needed to run a business (Froshauer, 2018; Maker's Row, 2018; Rojas, 2017; YEC, 2020). To better understand your strengths and weaknesses in these areas, rate your level of skill in each one.

1. Budgeting, managing cash flow, basic accounting, keeping books, balance sheets.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Working with invoices, purchase orders.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Managing tax accounts and working with tax professionals.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Investing.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Finding and communicating with investors.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Borrowing, understanding credit.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Marketing, prospecting potential customers, sales, terms of payment, customer service.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Feedback:

See the following reading section on this website that matches skills you are interested in learning: Financial Skills, Planning, & Investors.

What can you do about skills that you don't have?

1. Take training in the missing skill(s). The NIH, Small Business Administration, and entrepreneur support organizations offer many free webinars. Some universities offer an entrepreneurship focus in other degree or certificate programs.
2. Find a partner or cofounder who has the skills you are missing or hire someone.
3. Learn from successful entrepreneurs, expert consultants, and entrepreneur support organizations.
4. Learn about startups by working in one (intrapreneurship).
5. Learn by working at different jobs within a company or at other companies.

1. Leadership.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Business communications, pitching, and negotiations.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Problem-solving.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Networking.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Project planning and management.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Hiring, personnel, and delegation.				
No skill	Low skill	Moderate skill	High skill	Very high skill
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Feedback:

See the following reading sections on this website that match skills you are interested in learning.

- [Business Planning and Commercialization](#)
- [Communicating Confidently](#)
- [Negotiating Skills](#)

- [Pitch Skills](#)
- [Tips on Planning from Successful Biotech Entrepreneurs](#)
- [Planning Your Research Environment](#)

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References

Froshauer S. [Careers at Biotech Start-Ups and in Entrepreneurship](#). *Cold Spring Harb Perspect Biol*. November 1, 2017;9(11):a032938. [doi:10.1101/cshperspect.a032938](https://doi.org/10.1101/cshperspect.a032938).

Maker's Row. [Financial Skills Every Entrepreneur Needs to Succeed](#). Maker's Row Blog. January 24, 2018.

Rojas N. [The most important financial skills every entrepreneur should possess](#). Millo. 2018.

Staff. [Accounting for Entrepreneurs: 5 Skills You Need to Know](#). November 9, 2017.

Young Entrepreneur Council. [11 Crucial Skills Every Small Business Owner Needs From Day One](#). *Forbes*. January 21, 2020.