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Nota di contenuto	Intro -- Preface -- How This Book Can Help You (Become a Principal Investigator and a Successful Scientist) -- Acknowledgments -- Contents -- About the Author -- List of Abbreviation -- List of Figures -- List of Tables -- 1: ``Carving Your Own Path``: Shaping Your Scientific Identity -- Curiosity Drives All -- Getting Ideas for New Projects -- Listening to Talks -- Giving Talks -- Informal Discussions -- Literature -- Data -- Thinking -- Others -- Top Publishers -- Picking Projects -- How Do You Know If a Project Is Going in the Right Direction? -- Top Publishers -- What Keeps You Motivated to Continue a Project? -- How Do You Know When to Stop a Project? -- Losing Interest in the Project -- Is the Topic Worth Pursuing? -- The Tools Are Not Working -- Personnel -- Stopping a Project Later -- The Best Time to Stop a Project -- Top Publishers -- Reference -- 2: The Two Cornerstones of Academic Research: Writing Grant Applications and Publications -- Grants -- The Evaluation Process -- Best Practices -- Dealing with the Rejection of Your Grant -- The Suggestions of PIs to Improve the Grant System -- Publish or Perish: The Ambivalent

Relationship of Scientists with Publications -- The External Functions of Publications -- The Internal Function of Publications -- The Volume of Publications -- The Reproducibility of Publications -- The Reviewing Process -- Practical Advice -- Top Publishers -- 3: Setting Up a Successful Research Group -- How Do You Know, How Do You Decide, that You Want to Hire Someone? -- The Procedure -- Pre-filters for Shortlisting -- What to Look for During the Personal Contacts -- Repeated Contact -- Establishing a Connection -- Specific Issues to Discuss -- How to Conduct the Interview -- Vetting the Person -- Making the Decision -- The Composition of Your Lab -- 4: Leading Your Research Group as a Principal Investigator. The Relationship between PIs and Their Group -- Focus on the Self Versus Focus on Others -- Dealing with Underperforming Team Members -- Distributing the Work -- Teamwork -- Individual Drivers -- Motivation -- Education -- No Internal Competition -- Pros and Cons of Individually Driven Projects -- Hybrid Methods -- Dedicated Persons for Difficult Techniques -- Dedicated Responsible for the Project -- Reading or Doing Experiments? -- It Is Hard to Keep Up with the Literature -- Depends on the Career Stage -- Depends Also on the Project, Work Stage, and the Individual -- Reasons to Read -- Prioritizing Reading -- Prioritizing Experiments -- A Partnership of Researcher and PI -- Literature Bias -- Communicating with Your Group -- 5: The Daily Work of Principal Investigators -- Hard Work -- The Sources of Daily Motivation for PIs -- Excitement -- Team Members -- The Big Picture -- Immediate Tasks -- Keeping a Finger on the Pulse of the Lab -- The Lab Environment -- What Is the Most Important Activity of a PI? -- Communication -- Interpreting Results -- Managing People -- Steering Projects -- Motivating People -- Creating the Vision -- Writing -- Others -- Top Publishers -- Evaluating Information -- The Person -- Reproducibility -- Technical Quality -- Statistics and Size of the Effect -- Consistency with Other Results or Earlier Experience -- Results Coming from the Literature -- Reliability -- Remembering Experimental Results -- Most PIs Remember Results Visually -- Some PIs Remember a Combination of Images and Something Else -- Some Remember Little Movies -- Internal Dialogue Only -- Remembering Numbers -- Changes Over Time -- Results Coming Out of Your Lab or from Publications -- Some Don't Remember Results! -- Remembering Experimental Results that Do Not Seem to Make Sense -- Arguments for a Good Filing System -- Ways to Help Yourself Remembering. Interpreting ``Grey`` Results -- Preamble -- Hypothesis-Driven Science -- Appreciating Greyness -- Relying on Experience -- More Repeats -- The Size of the Effect -- Follow-up Experiments -- Weight of Evidence -- Independent Confirmation -- Top Publishers -- Dealing with the Results Not Fitting the Hypothesis -- Not Good for the Ego -- Reasons to Hate Them -- Collecting Them Separately -- Are We Doing It Properly? -- Detail or Cornerstone? -- The Fails Are More Interesting -- Unexpected Results Can Lead to New Projects -- Hypotheses Are Only Tools and They Are Made to be Falsified -- Much Better than Uninterpretable Data -- Keep Your Students from Despair -- It's Normal -- Do You Really Need a Hypothesis? -- Piecing Experimental Results Together -- Scientific Storytelling -- Your Job as a PI -- Building the Big Picture -- Deduction -- Induction -- Start Early -- Shuffling Things -- Consistency -- When to Stop -- The Process -- Reaching Out for Help -- Always Collaborating -- Going It Alone -- There Is a Trigger -- New Methods -- Guidance -- Keep Your Threshold Low -- How to Ask for Help -- Top Publishers -- Planning Collaborations -- Communicating with Others -- Talking Things over

-- 6: Dealing with Failure and Stress in Academic Research -- What Is a Failed Experiment? -- No Such Thing -- No Information -- Technical Failure -- Unexpected Data -- Failure of Hypothesis -- Did Not Answer the Question -- Irreproducible Results -- Dealing with Experimental Failure -- It Is Disappointing -- Move on -- It's Hard on the Experimenter, Too -- Part of the Business -- Gets Easier with Time -- You Can Still Learn from it -- You Have to Learn from it -- Patience -- Technical Problems -- Incompetence -- Irreproducible Published Results -- They Are Wasteful and Frustrating -- They Erode Trust -- They Are Part of the Business -- It's Built in the System. Lack of Standards -- Pressure to Publish -- Too Much Focus on Positive Results -- No Penalty -- It Can Happen to Anybody -- There Are Cheaters -- What to Do about Them? -- If You Cannot Reproduce Other People's Results -- Educate Your Students -- Prevent it -- Fixing the System -- Not a Problem -- Science Is Self-correcting -- They Can be an Opportunity -- Reacting to Stressful Situations -- Dealing with Stress -- Not Stressed -- It May Get Easier with Time -- Stress Can be Helpful -- What Can You Do? -- Accept it -- Working More -- Being Organized -- Putting it in Perspective -- Taking Time Off -- Distractions -- Talking it Out -- Life Outside the Lab -- Family -- Physical Exhaustion -- Being Outside -- Stress-reduction Techniques -- Others -- Not Passing Stress on -- Recharging Your Batteries --

References -- 7: Thoughts of Principal Investigators about Work, Science, and Themselves -- What Is Important about Work to PIs? -- Pays for Life -- Enjoyment -- Work-Life Balance -- Know What Makes Being a PI Enjoyable for you -- A Challenging Game -- Contributing to Society -- Social Interactions -- Self-Realisation -- Being at the Cutting Edge -- Ethics -- Self-Determination -- Why Is Science Important to PIs? -- What Science Is to PIs -- The Role of Science in Society -- Engagement with the Public -- Basic Science and Applied Science -- The Importance of Science on the Personal Level -- Top Publishers -- What Do PIs Believe about themselves? -- Intellectual Capabilities -- Independence, Courage, and Decisiveness -- Interaction with the Team and the Institution -- Communicating your Results -- Things that they Wished they Were Better at -- Top Publishers -- How PIs Measure their Own Success -- The Factors Contributing to the Success of PIs -- The Definition of Success -- Probably no Single Success Factor -- Perseverance -- Passion for Science. Enjoyment -- Mentors and Training -- Hard Work -- Delivering Results -- Creativity to Ask the Right Questions -- Collaboration -- Character Traits -- Good Group -- Supportive Family and Friends -- Luck -- Top Publishers --

References -- 8: Under the Hood: Common Thinking Patterns of Principal Investigators -- Noticing Similarities or Differences? -- The ``Big Picture`` or the Details? -- Listening Style -- Setting Goals -- Self-Talk -- Cheerleading -- Prioritizing Tasks -- Self-Questioning -- Clarifying -- Steadying themselves -- Visual -- Expected Results -- Exploring Connections -- Teaching Tool -- Finding Solutions -- Lists -- Preparing for Upcoming Events -- Gut Feeling -- Auditory -- In Writing -- Facts or Principles? -- Making Decisions -- Reason and Logic or Personal Values and Your Feelings? -- Acting Quickly or Making a Complete Study of all the Consequences Before Acting? -- Sorting by Elimination or Sorting for the Presence of Attributes -- Judging Competence -- Your Favourite Way of Getting Convinced -- Repeat Demonstration of Competence -- How Do You Know that You Have Made the Right Decision? -- The Toughest Decisions -- The Important Thing Is to Decide -- How Do You Know If It Was a Good Decision? -- If You Want Reassurance -- Dwelling on Past Decisions -- Reversing Your Decision -- Intuitive Decisions --

Rationalizing the Decision -- Quick Decisions -- The Slow Deciders --  
9: Epilogue -- 10: Methods -- Interview Subjects -- Interviews -- Top  
Publishers -- Figures -- Recommended Reading -- References.

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