

# Inquiry into BIOLOGY

## Authors

### Helen Colbourne

Forest Lawn High School  
Calgary, Alberta

### Bob Constantin

Writer/Educator  
Formerly of Bishop McNally High School  
Calgary, Alberta

### Darcy Dobell

Professional Writer/Educator  
Tofino, British Columbia

### Claudia Fehres

William Aberhart High School  
Calgary, Alberta

### Deborah MacFadyen

Jack James High School  
Calgary, Alberta

### Adrienne Mason

Professional Writer  
Tofino, British Columbia

### George Thomson

Crescent Heights High School  
Medicine Hat, Alberta

### Alexandra Venter

Professional Writer  
Calgary, Alberta

## Contributing Authors

### Jonathan Bocknek

Educational Writer  
Vallican, British Columbia

### Jenna Dunlop

Educational Writer  
Toronto, Ontario

### Glen Hutton

Educational Writer  
Vulcan, Alberta

### Christine Weber

Educational Writer  
Chilliwack, British Columbia



**McGraw-Hill  
Ryerson**

Toronto Montréal Boston Burr Ridge, IL Dubuque, IA Madison, WI New York San Francisco  
St. Louis Bangkok Bogotá Caracas Kuala Lumpur Lisbon London Madrid Mexico City  
Milan New Delhi Santiago Seoul Singapore Sydney Taipei

## Acknowledgements

Producing a textbook of high quality is a true team effort, requiring the input and expertise of a very large number of people. The authors, editorial team, and publishers of this book would like to convey our sincere thanks to the reviewers listed below who provided crucial analyses of our draft manuscript, and often provided reviews of designed pages. Their assistance was invaluable in helping us develop a text that we hope you will find completely appropriate for your teaching and your students' learning. In addition, the comments from those teachers (and their students!) who took part in the field testing of this material were very helpful and much appreciated. We realize that tackling a new curriculum with a text-in-progress is a big challenge, and we thank you for being up to the task.

We also thank the following writers who researched and prepared the Special Features in *Inquiry into Biology*: Kirsten Craven, Jenna Dunlop, Susan Girvan, Eric Grace, Barbara Hehner, Ann Heide, Lynne Kailan, Denyse O'Leary, George Thomson, and Alexandra Venter. Finally, we thank the talented and dedicated members of the team at Pronk&Associates who did their best no matter what challenges they faced.

## Reviewers

### **Susan Barker**

University of Alberta  
Edmonton, Alberta

### **Agnieszka Barwacz-Riou**

Strathmore High School  
Strathmore, Alberta

### **Erich Berndt**

Sir Winston Churchill High School  
Calgary, Alberta

### **Dean Brown**

Crescent Heights High School  
Medicine Hat, Alberta

### **Stephen Brown**

Lord Beaverbrook High School  
Calgary, Alberta

### **Duncan Buchanan**

St. Francis Xavier High School  
Edmonton, Alberta

### **Tanya Buhlmann**

Queen Elizabeth High School  
Edmonton, Alberta

### **Jenai Christensen**

Ross Sheppard High School  
Edmonton, Alberta

### **Maureen Cimino**

Jasper Place High School  
Edmonton, Alberta

### **Roger Cowan**

Brooks Composite High School  
Brooks, Alberta

### **Michael Craig**

William Aberhart High School  
Calgary, Alberta

### **Jane Dyke**

Ross Sheppard High School  
Edmonton, Alberta

### **Ken Ealey**

St. Jerome, A Science Academy  
Edmonton Catholic Schools  
Edmonton, Alberta

### **Rhonda Elser**

Calgary Catholic Separate  
School Board  
Calgary, Alberta

### **Claudia Fehres**

William Aberhart High School  
Calgary, Alberta

### **Eulalia Fernandez**

William Aberhart High School  
Calgary, Alberta

### **Evelyn Fray**

Ross Sheppard High School  
Edmonton, Alberta

### **Julianne Hafer**

Ross Sheppard Senior High  
Edmonton, Alberta

### **Gary Hanna**

Memorial Composite High School  
Stoney Plain, Alberta

### **Natasha Heron**

Henry Wise Wood High School  
Calgary, Alberta

### **Robert C. Hicks**

Lord Beaverbrook Senior  
High School  
Calgary, Alberta

### **Gord Jasper**

Dr. E.P. Scarlett Senior High School  
Calgary, Alberta

### **Stephen Jeans**

University of Calgary  
Calgary, Alberta

### **Christina Kang**

Notre Dame High School  
Calgary, Alberta

### **Mark Ladd**

Peace River High School  
Peace River, Alberta

### **Kathryn Lowther**

Western Canada High School  
Calgary, Alberta

### **Ann Lukey**

Ecole Secondaire Beaumont  
Composite High School  
Beaumont, Alberta

### **William MacLean**

Forest Lawn High School  
Calgary, Alberta

**Valerie Martel**

Grande Prairie Composite  
High School  
Grande Prairie, Alberta

**Daniel McDougall**

Bishop O'Byrne High School  
Calgary, Alberta

**Paul Merrick**

McCoy High School  
Medicine Hat, Alberta

**Brian Moriarty**

Bishop Carroll Senior High  
Calgary, Alberta

**Kimberley Orr**

Lethbridge Collegiate Institute  
Lethbridge, Alberta

**David Rose**

John G. Diefenbaker High School  
Calgary, Alberta

**Cheryl Sceviour**

John Diefenbaker High School  
Calgary, Alberta

**Deborah Schroder**

Sturgeon Composite High School  
Namao, Alberta

**Jay Smith**

Grande Prairie Composite  
High School  
Grande Prairie, Alberta

**Trevor Smith**

Ross Sheppard High School  
Edmonton, Alberta

**Wade Strass**

Spruce Grove Composite  
High School  
Spruce Grove, Alberta

**Rachel Toews**

Bowness High School  
Calgary, Alberta

**Mary Jane Tomcala**

St. Mary's High School  
Calgary, Alberta

**James Ward**

Red Deer, Alberta

**Glyn Wynn**

University of Alberta  
Edmonton, Alberta

**Accuracy Reviewers****Heather Addy**

University of Calgary  
Calgary, Alberta

**Glen Hawkins**

University of Alberta  
Edmonton, Alberta

**Karen Hobbs**

University of Alberta  
Edmonton, Alberta

**Gail Michener**

University of Lethbridge  
Lethbridge, Alberta

**Ted Pike**

Sir Winston Churchill High School  
Calgary, Alberta

**Brent Selinger**

University of Lethbridge  
Lethbridge, Alberta

**Sid Shugarman**

Edmonton Public Schools  
Edmonton, Alberta

**Lab Technical Reviewers****Pat Davey**

Lord Beaverbrook High School  
Calgary, Alberta

**Rebecca Michaels**

Forest Lawn Senior High School  
Calgary, Alberta

**Senior Pedagogical  
Consultant****Elisa Rawe**

Edmonton Public Schools  
Centre for Education  
Edmonton, Alberta

**Safety Reviewer****Barry McCashin**

University of Alberta  
Edmonton, Alberta