

# Contents

<b>Foreword</b>	<b>11</b>
<b>Preface</b>	<b>13</b>
<b>Survey Results</b>	<b>17</b>
<b>Viewpoints</b>	<b>29</b>
A Young Medical Innovator Looks Forward <i>Jack Andraka</i>	30
“Big Data” Boosts Healthcare Innovation <i>Anil Jain, M.D. and Charlie Loughheed</i>	37
The Importance of Basic Research <i>Paul DiCorleto, Ph.D.</i>	42
The Paper Chase: The Unending Scramble for Investment Dollars <i>Patrick Fortune, Ph.D., M.B.A.</i>	46
Riding the Gray Horse: Challenges of Being a Clinician-Entrepreneur <i>Joseph Foss, M.D.</i>	52
Driving Innovation for the Right Reasons <i>Tom Gentile, M.B.A.</i>	57
The Challenges Facing Medical Device Companies <i>Frank Papay, M.D.</i>	64
Making Industry-Academia Relationships Work <i>D. Geoffrey Vince, Ph.D.</i>	70
The Paradigm Shift in American Innovation <i>Thomas Graham, M.D.</i>	77

<b>Institution Profiles</b>	<b>83</b>
University of Alabama at Birmingham	84
By the Numbers	90
University of Arizona	91
By the Numbers	97
Beth Israel Deaconess Medical Center	98
By the Numbers	103
Boston Children's Hospital	105
By the Numbers	111
Boston University	113
By the Numbers	118
University of California, Davis	119
By the Numbers	126
University of California, Irvine	127
By the Numbers	133
University of California, San Diego	134
By the Numbers	140
Case Western Reserve University	141
By the Numbers	147
Children's Hospital of Philadelphia	148
By the Numbers	154
University of Cincinnati	155
By the Numbers	160
Cincinnati Children's Hospital Medical Center	161
By the Numbers	167
Clemson University	169
By the Numbers	174
Cleveland Clinic	176
By the Numbers	183
University of Colorado	184
By the Numbers	190
Colorado State University	192
By the Numbers	197
Columbia University	198
By the Numbers	204
University of Florida	206
By the Numbers	211

Florida State University	212
By the Numbers	218
Georgetown University	220
By the Numbers	225
University of Georgia	227
By the Numbers	233
University of Illinois at Chicago	235
By the Numbers	241
Indiana University	243
By the Numbers	248
University of Iowa	249
By the Numbers	255
Johns Hopkins University	256
By the Numbers	262
Louisiana State University	263
By the Numbers	268
Massachusetts Institute of Technology	269
By the Numbers	275
Memorial Sloan-Kettering Cancer Center	276
By the Numbers	282
M.D. Anderson Cancer Center	283
By the Numbers	289
University of Miami	290
By the Numbers	296
University of Michigan	298
By the Numbers	304
Michigan State University	305
By the Numbers	311
University of Minnesota	312
By the Numbers	318
University of Missouri	320
By the Numbers	326
The Mount Sinai Medical Center	327
By the Numbers	332
University of Nebraska Medical Center	334
By the Numbers	339
New York University	341
By the Numbers	347

Northwestern University	348
By the Numbers	354
Ohio University	355
By the Numbers	361
The Ohio State University	362
By the Numbers	367
Oklahoma Medical Research Foundation	368
By the Numbers	373
Oregon Health & Science University	374
By the Numbers	380
Oregon State University	382
By the Numbers	387
Partners HealthCare	388
By the Numbers	394
Pennsylvania State University	396
By the Numbers	401
University of Pittsburgh	403
By the Numbers	409
Princeton University	410
By the Numbers	416
University of Rochester	417
By the Numbers	423
Salk Institute	424
By the Numbers	430
Sanford-Burnham Medical Research Institute	431
By the Numbers	437
University of South Carolina	438
By the Numbers	443
University of Southern California	444
By the Numbers	
St. Jude Children's Research Hospital	450
By the Numbers	455
Stanford University	456
By the Numbers	462
Texas A&M University	463
By the Numbers	469
University of Utah	470
By the Numbers	476

Vanderbilt University	478
By the Numbers	484
Wake Forest University	486
By the Numbers	
Washington University, St. Louis	491
By the Numbers	496
Wayne State University	497
By the Numbers	502
Yale University	503
By the Numbers	508