

Investing activity by disease area

| Disease Area | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------------|---------|-------|-------|-------|---------|-------|---------|---------|---------|---------|
| Oncology | \$324 | \$135 | \$250 | \$99 | \$375 | \$251 | \$691 | \$781 | \$1,037 | \$1,426 |
| Neurology | \$226 | \$121 | \$119 | \$114 | \$142 | \$163 | \$392 | \$269 | \$559 | \$792 |
| Platform | \$113 | \$98 | \$52 | \$152 | \$215 | \$241 | \$174 | \$343 | \$268 | \$687 |
| Other | \$98 | \$126 | \$67 | \$82 | \$95 | \$39 | \$117 | \$189 | \$125 | \$635 |
| Infectious | \$86 | \$37 | \$128 | \$56 | \$93 | \$95 | \$173 | \$57 | \$248 | \$171 |
| Metabolic | \$28 | \$13 | \$79 | \$80 | \$28 | \$18 | \$146 | \$81 | \$194 | \$146 |
| Immunology | \$115 | \$16 | \$50 | \$51 | \$10 | \$44 | \$9 | \$63 | \$41 | \$410 |
| Ophthalmology | \$49 | \$45 | \$92 | \$59 | \$113 | \$26 | \$28 | \$32 | \$111 | \$42 |
| Endocrine | \$47 | \$12 | \$12 | \$29 | \$9 | \$19 | \$65 | \$68 | \$105 | \$172 |
| Gastrointestinal | \$9 | \$64 | \$0 | \$16 | \$15 | \$0 | \$27 | \$11 | \$69 | \$293 |
| Cardiovascular | \$41 | \$38 | \$22 | \$133 | \$44 | \$18 | \$54 | \$50 | \$72 | \$31 |
| Psychiatry | \$2 | \$25 | \$24 | \$39 | \$20 | \$7 | \$29 | \$192 | \$14 | \$58 |
| Respiratory | \$22 | \$62 | \$50 | \$3 | \$0 | \$8 | \$34 | \$45 | \$34 | \$120 |
| Hematology | \$26 | \$45 | \$2 | \$54 | \$35 | \$37 | \$21 | \$66 | \$45 | \$0 |
| Total (\$M) | \$1,183 | \$838 | \$948 | \$966 | \$1,193 | \$965 | \$1,960 | \$2,247 | \$2,922 | \$4,983 |

Source: BIO 2019 Emerging Therapeutic Company Trend Report (\$M for US companies by disease area, 2009-2018)

Partnering activity by disease area

| Disease Area | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Oncology | \$919 | \$533 | \$1,139 | \$804 | \$874 | \$1,697 | \$3,421 | \$1,981 | \$2,256 | \$3,780 |
| Neurology | \$1,589 | \$264 | \$128 | \$231 | \$296 | \$586 | \$327 | \$229 | \$384 | \$2,115 |
| Immunology | \$396 | \$189 | \$259 | \$163 | \$261 | \$82 | \$898 | \$259 | \$311 | \$104 |
| Other | \$107 | \$681 | \$106 | \$310 | \$95 | \$152 | \$462 | \$195 | \$113 | \$526 |
| Endocrine | \$113 | \$476 | \$588 | \$8 | \$96 | \$530 | \$377 | \$92 | \$147 | \$309 |
| Cardiovascular | \$175 | \$737 | \$72 | \$6 | \$120 | \$91 | \$82 | \$75 | \$227 | \$1,085 |
| Platform | \$139 | \$230 | \$487 | \$71 | \$396 | \$142 | \$377 | \$234 | \$139 | \$68 |
| Infectious Disease | \$797 | \$304 | \$197 | \$257 | \$58 | \$196 | \$65 | \$6 | \$24 | \$366 |
| Metabolic | \$185 | \$166 | \$33 | \$95 | \$62 | \$738 | \$230 | \$120 | \$69 | \$399 |
| Gastrointestinal | \$266 | \$0 | \$50 | \$20 | \$70 | \$798 | \$0 | \$185 | \$116 | \$170 |
| Ophthalmology | \$36 | \$25 | \$60 | \$163 | \$10 | \$418 | \$248 | \$51 | \$161 | \$78 |
| Respiratory | \$275 | \$52 | \$9 | \$1 | \$50 | \$57 | \$380 | \$40 | \$234 | \$17 |
| Hematology | \$102 | \$30 | \$25 | \$38 | \$66 | \$260 | \$230 | \$125 | \$133 | \$5 |
| Psychiatry | \$231 | \$32 | \$202 | \$11 | \$98 | \$25 | \$10 | \$13 | \$67 | \$105 |
| Total (\$M) | \$5,330 | \$3,719 | \$3,355 | \$2,177 | \$2,553 | \$5,772 | \$7,105 | \$3,604 | \$4,381 | \$9,126 |

Source: BIO 2019 Emerging Therapeutic Company Trend Report (\$M for US companies by disease area, 2009-2018)

Acquisition activity by disease area

| Disease Area | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------------------|---------|---------|----------|---------|---------|---------|----------|----------|----------|----------|
| Oncology | \$1,773 | \$2,833 | \$2,218 | \$2,175 | \$2,616 | \$1,435 | \$1,011 | \$8,931 | \$13,922 | \$15,274 |
| Infectious Disease | \$1,187 | \$0 | \$11,412 | \$2,131 | \$1,339 | \$5,827 | \$190 | \$0 | \$13 | \$458 |
| Metabolic | \$0 | \$22 | \$610 | \$293 | \$74 | \$89 | \$8,716 | \$0 | \$536 | \$9,589 |
| Gastrointestinal | \$0 | \$390 | \$21 | \$0 | \$0 | \$1,027 | \$7,332 | \$0 | \$0 | \$621 |
| Neurology | \$703 | \$695 | \$210 | \$46 | \$37 | \$952 | \$3,644 | \$1,322 | \$1,027 | \$340 |
| Hematology | \$255 | \$0 | \$0 | \$94 | \$240 | \$0 | \$0 | \$665 | \$571 | \$5,123 |
| Endocrine | \$0 | \$472 | \$71 | \$315 | \$730 | \$107 | \$2,722 | \$594 | \$180 | \$0 |
| Immunology | \$221 | \$102 | \$186 | \$1,272 | \$0 | \$260 | \$330 | \$275 | \$620 | \$477 |
| Other | \$302 | \$70 | \$175 | \$9 | \$0 | \$0 | \$229 | \$815 | \$534 | \$195 |
| Respiratory | \$0 | \$204 | \$328 | \$178 | \$600 | \$0 | \$260 | \$500 | \$0 | \$0 |
| Platform | \$29 | \$598 | \$10 | \$111 | \$51 | \$175 | \$541 | \$50 | \$0 | \$133 |
| Cardiovascular | \$153 | \$165 | \$10 | \$3 | \$336 | \$42 | \$600 | \$0 | \$137 | \$141 |
| Ophthalmology | \$298 | \$0 | \$0 | \$0 | \$160 | \$67 | \$679 | \$170 | \$0 | \$109 |
| Psychiatry | \$0 | \$226 | \$0 | \$0 | \$0 | \$0 | \$462 | \$0 | \$100 | \$0 |
| Total (\$M) | \$4,921 | \$5,777 | \$15,251 | \$6,627 | \$6,183 | \$9,981 | \$26,716 | \$13,322 | \$17,640 | \$32,460 |

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