Figure S1 Founding situation of youth scientists between China and America. (A) Scatterplot of the trend for total funding of the China Youth Scientists Fund from 2008 to 2019. (B) Scatterplot of the trend for total funding of the United States National Youth Science Foundation from 2008 to 2019.

Table S1 Word frequency analysis results of NSFC-funded projects in lung cancer

| Freq | Centrality | Sigma | PageRank | Keyword          |
|------|------------|-------|----------|-----------------|
| 12   | 0          | 1     | 0.96     | EMY             |
| 12   | 0          | 1     | 0.78     | Epithelium      |
| 12   | 0          | 1     | 0.6      | Invasion        |
| 12   | 0          | 1     | 0.6      | Lung cancer     |
| 12   | 0          | 1     | 0.6      | Occurrence      |
| 9    | 0.01       | 1     | 1.34     | DNA             |
| 9    | 0          | 1     | 0.87     | EGFR-TKI        |
| 9    | 0          | 1     | 0.69     | Endothelial     |
| 9    | 0          | 1     | 0.6      | Metabolism      |
| 9    | 0          | 1     | 0.6      | Immune          |
| 9    | 0          | 1     | 0.6      | Prostate cancer |
| 9    | 0          | 1     | 0.6      | Proliferation   |
| 6    | 0.33       | 1     | 3.66     | Apoptosis       |
| 6    | 0.22       | 1     | 3.17     | Clinic          |
| 6    | 0          | 1     | 0.51     | IncRNA          |
| 6    | 0          | 1     | 0.51     | Imaging         |
| 6    | 0          | 1     | 0.51     | microRNA        |
| 6    | 0          | 1     | 0.51     | Receptor        |
| 3    | 0          | 1     | 0.97     | CT              |
| 3    | 0          | 1     | 0.97     | China           |
| 3    | 0          | 1     | 0.51     | Growth          |
| 3    | 0          | 1     | 0.42     | Promotion       |
| 3    | 0          | 1     | 0.42     | Genomics        |
| 3    | 0          | 1     | 0.42     | Traditional Chinese Medicine |
| 3    | 0          | 1     | 0.42     | Notch           |
| 3    | 0          | 1     | 0.42     | KRAS            |
| 3    | 0          | 1     | 0.42     | Signaling Pathway |
| 3    | 0          | 1     | 0.42     | RNA             |

NSFC, National Natural Science Foundation of China.

Table S2 Word frequency analysis results of NIH-funded projects in lung cancer

| Freq | Burst | Centrality | Sigma | PageRank | Keyword          |
|------|-------|------------|-------|----------|-----------------|
| 1,718| 0.59  | 1          | 0     | Cancer   |
| 1,174| 0.31  | 1          | 0     | Lung     |
| 283  | 0.03  | 1          | 0     | Mechanism|
| 275  | 0.03  | 1          | 0     | Development |
| 219  | 0.03  | 1          | 0     | Therapy  |
| 197  | 4.24  | 0.07       | 1.31  | Targeting|
| 179  | 2.68  | 0          | 1     | Treatment |
| 178  | 0.03  | 1          | 0     | Research |
| 176  | 0.06  | 1          | 0     | Imaging  |
| 171  | 0.02  | 1          | 0     | Signaling |
| 162  | 0.07  | 1          | 0     | Clinical |
| 158  | 0.01  | 1          | 0     | Pulmonary |
| 139  | 0.02  | 1          | 0     | Breast   |
| 133  | 0.01  | 1          | 0     | Inhibitor |
| 111  | 0.01  | 1          | 0     | Receptor |
| 108  | 0.03  | 1          | 0     | Therapeutic |
| 100  | 3.82  | 0.03       | 1.12  | Biomarker |
| 94   | 0.04  | 1          | 0     | Risk     |
| 89   | 2.89  | 0.01       | 1.02  | Metastasis|
| 78   | 0.02  | 1          | 0     | Drug     |
| 75   | 10.5  | 0.03       | 1.36  | Trial    |
| 69   | 15.7  | 0          | 1.08  | Immune   |
| 66   | 4.8   | 0.02       | 1.1   | Health   |
| 64   | 0     | 1          | 0     | Screening |
| 57   | 3.91  | 0          | 1.01  | Injury   |
| 53   | 4.76  | 0.03       | 1.14  | Care     |
| 53   | 10.14 | 0          | 1.01  | Fibrosis |
| 52   | 12.12 | 0          | 1.01  | Small    |
| 50   | 11.06 | 0.03       | 1.38  | Agent    |
| 48   | 12.32 | 0.01       | 1.16  | Targeted |
| 45   | 3.73  | 0.01       | 1.02  | Tissue   |
| 40   | 13.05 | 0          | 1.05  | Prostate |
| 36   | 16.42 | 0.01       | 1.1   | Resistance |
| 35   | 16.67 | 0          | 1.08  | IGF      |
| 35   | 16.67 | 0          | 1.08  | OT       |
| 34   | 11.09 | 0          | 1     | Carcinogenesis |
| 31   | 10.1  | 0          | 1.02  | Growth   |
| 29   | 9.45  | 0          | 1.02  | Mouse    |
| 28   | 9.12  | 0.01       | 1.12  | Phase    |
| 27   | 8.8   | 0          | 1.01  | NSCLC    |
| 27   | 8.8   | 0          | 1.04  | Training |
| 27   | 11.63 | 0          | 1.01  | Early    |
| 27   | 11.63 | 0.02       | 1.31  | Diagnosis|
| 26   | 8.47  | 0          | 1.02  | Delivery |
| 24   | 7.81  | 0          | 1.02  | Vivo     |
| 24   | 7.81  | 0          | 1.02  | Exposure |
| 23   | 7.49  | 0          | 1     | Smoking  |
| 23   | 11.14 | 0          | 1     | Non-small |
| 21   | 9.92  | 0          | 1.01  | Immunotherapy |
| 16   | 9.05  | 0          | 1     | Stem     |
| 16   | 9.27  | 0          | 1.02  | EGFR     |

NIH, National Institutes of Health.