

# INDUSTRY PAYMENTS ANALYTICS



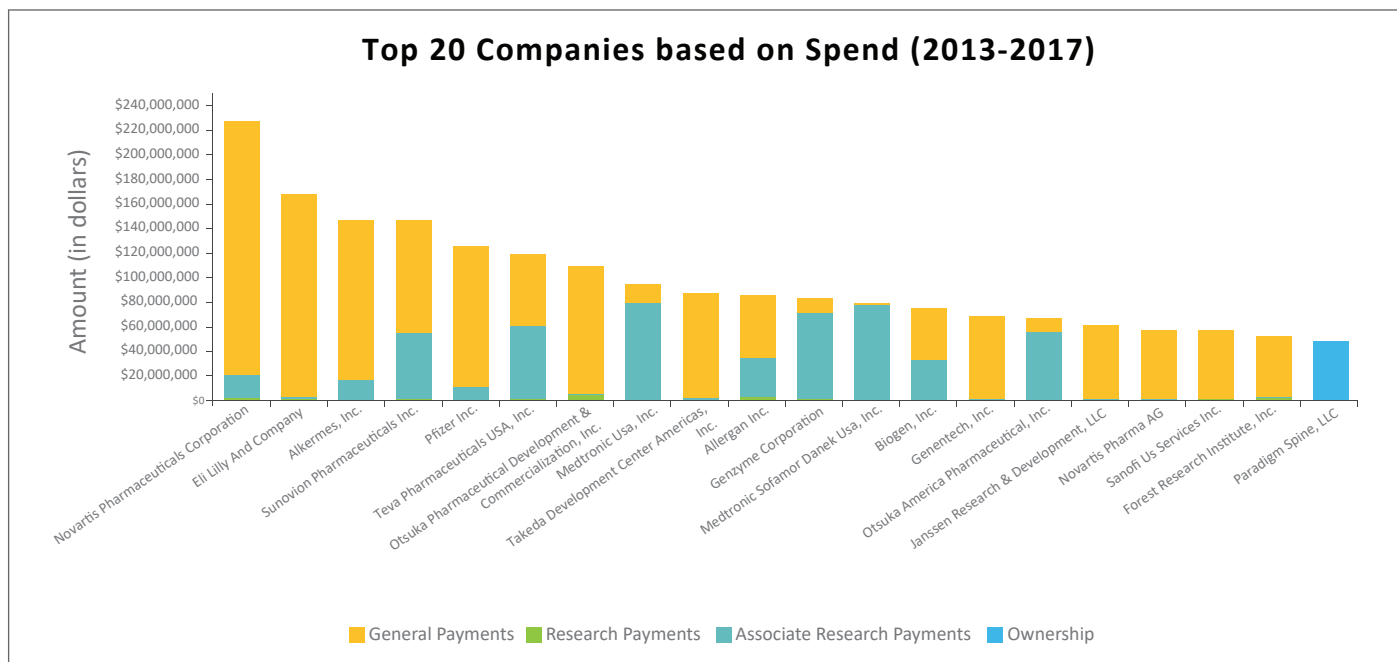
## Payments Insights & Trends for **Biogen**

[www.aissel.com/konectar](http://www.aissel.com/konectar)

## Industry Overview

Life Sciences companies need to track HCP Payments to get an understanding of average spends on HCPs, competitor affiliations and overall HCP utilization for different engagements. This can provide valuable insights to plan strategic KOL initiatives and engagements. Payments Analytics uses Open Payments data and creates insightful reports around the industry-HCP engagements.

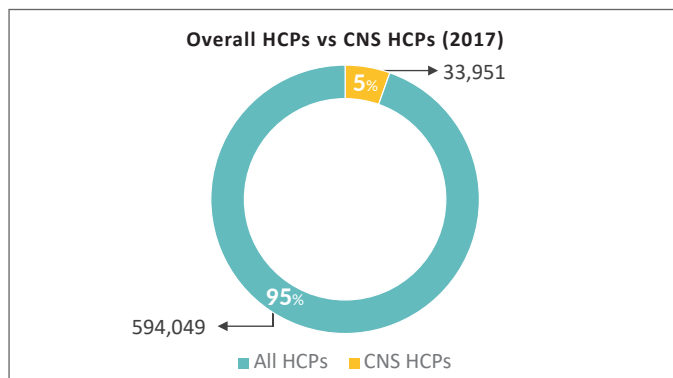
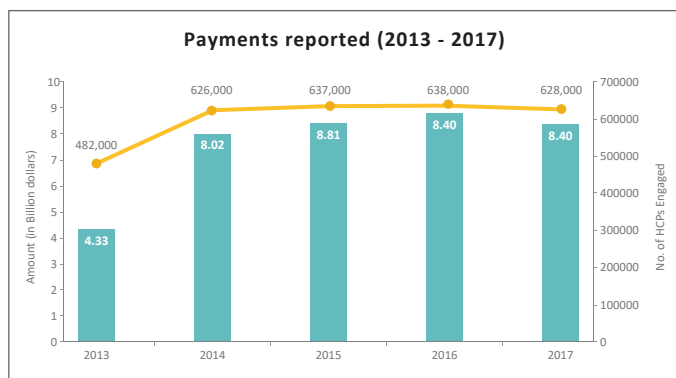
*An overview of the top 20 Life Sciences companies and their spend (2013-2017)*



## Sunshine Act and its Significance for Life Sciences Companies

The Physician Payments Sunshine Act (PPSA) requires medical product manufacturers to disclose to the Centers for Medicare and Medicaid Services (CMS) any payments or other transfers of value made to physicians or teaching hospitals. It also requires certain manufacturers and group purchasing organizations (GPOs) to disclose any physician ownership or investment interests held in those companies.

*Life Sciences companies payments trends (2013-2017)*



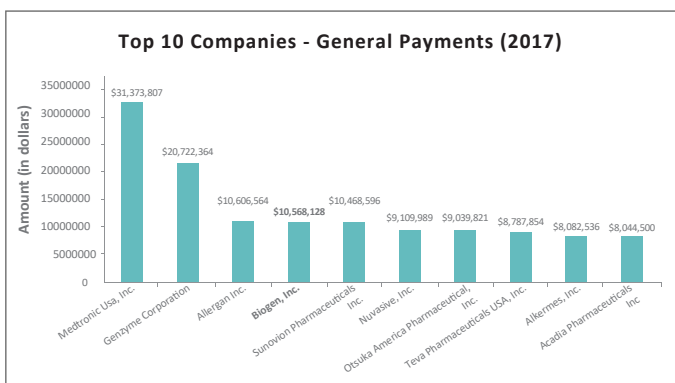
In 2017, Life Sciences companies spent \$8.40 billion on 628,000 HCPs.

8.6% (\$725 million) of the overall Payments was made to 5.4% (33,951) CNS experts in 2017.

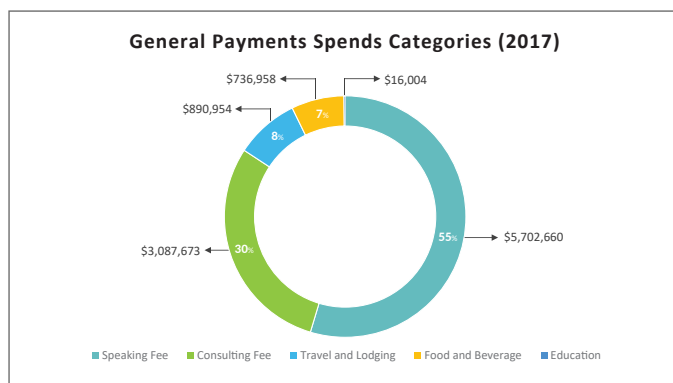
## Biogen Industry Payments Trends

Biogen is an American multinational biotechnology company specializing in the discovery, development, and delivery of worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases. Major focus areas include Multiple Sclerosis, Alzheimer's Disease, Parkinson's Disease, Amyotrophic Lateral Sclerosis (ALS), Spinal Muscular Atrophy (SMA) and Progressive Supranuclear Palsy (PSP).

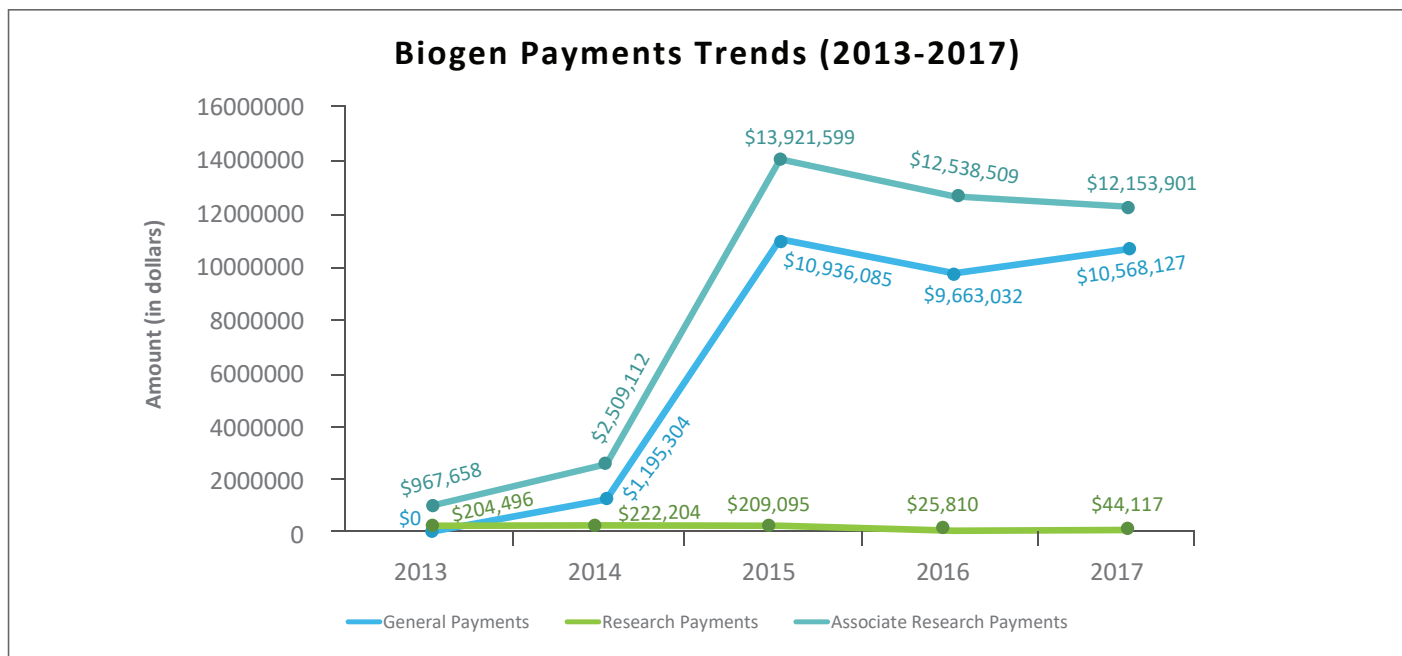
### Biogen - 4<sup>th</sup> Company to have the highest Spend on Industry-HCP Engagement with CNS Experts



Biogen spent \$10,568,128 on 4,151 CNS experts (General Payments 2017).

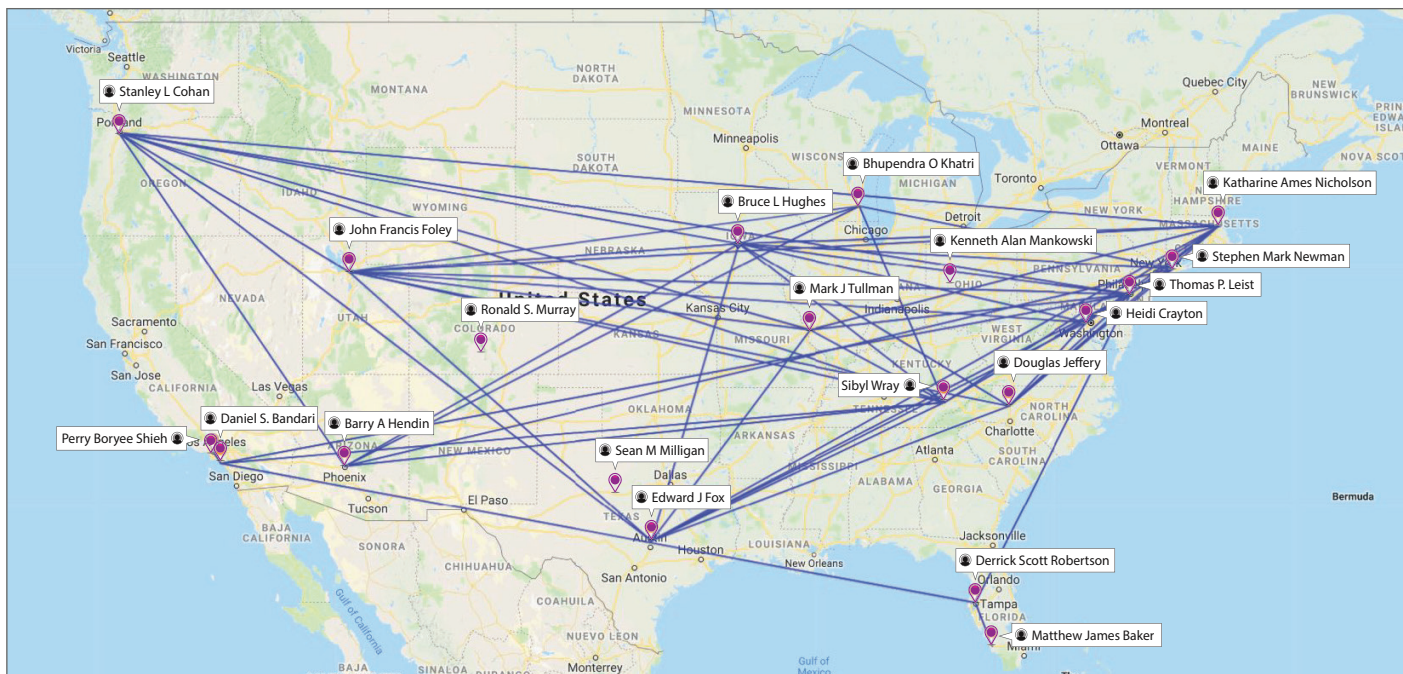


Biogen has spent \$5.7mn on speaking fee and \$3mn as consulting fee on CNS experts in 2017.



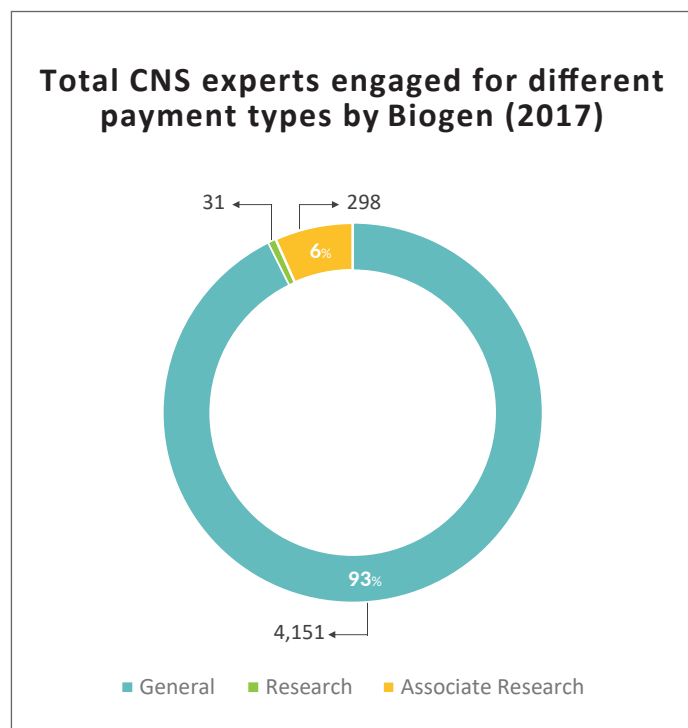
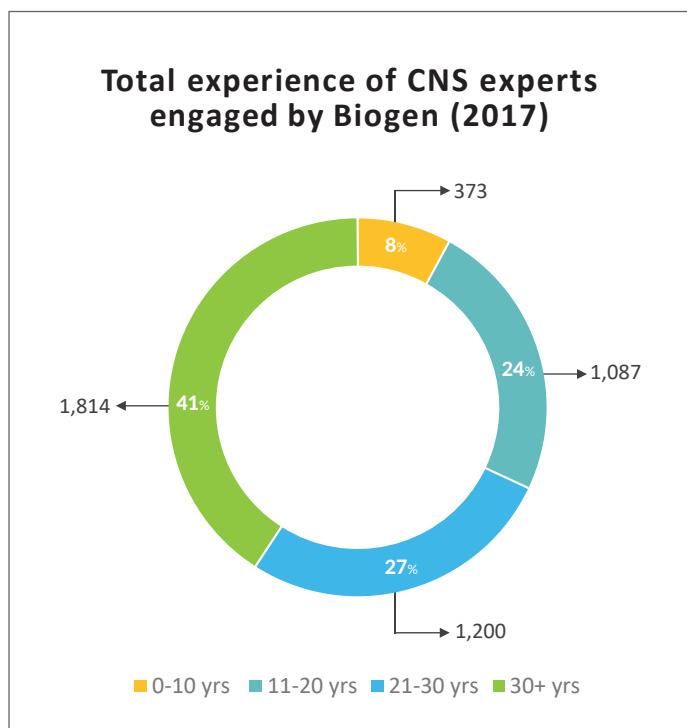
In 2015, Biogen significantly increased General Payments, Associate Research Payments spends on CNS experts, with 48 new studies initiated in the CNS space. In 2016, there was a dip in General Payments spends which was revived to \$10mn in 2017 on CNS experts.

## Geo Location & Network of Top 20 CNS Experts Engaged by Biogen in 2017

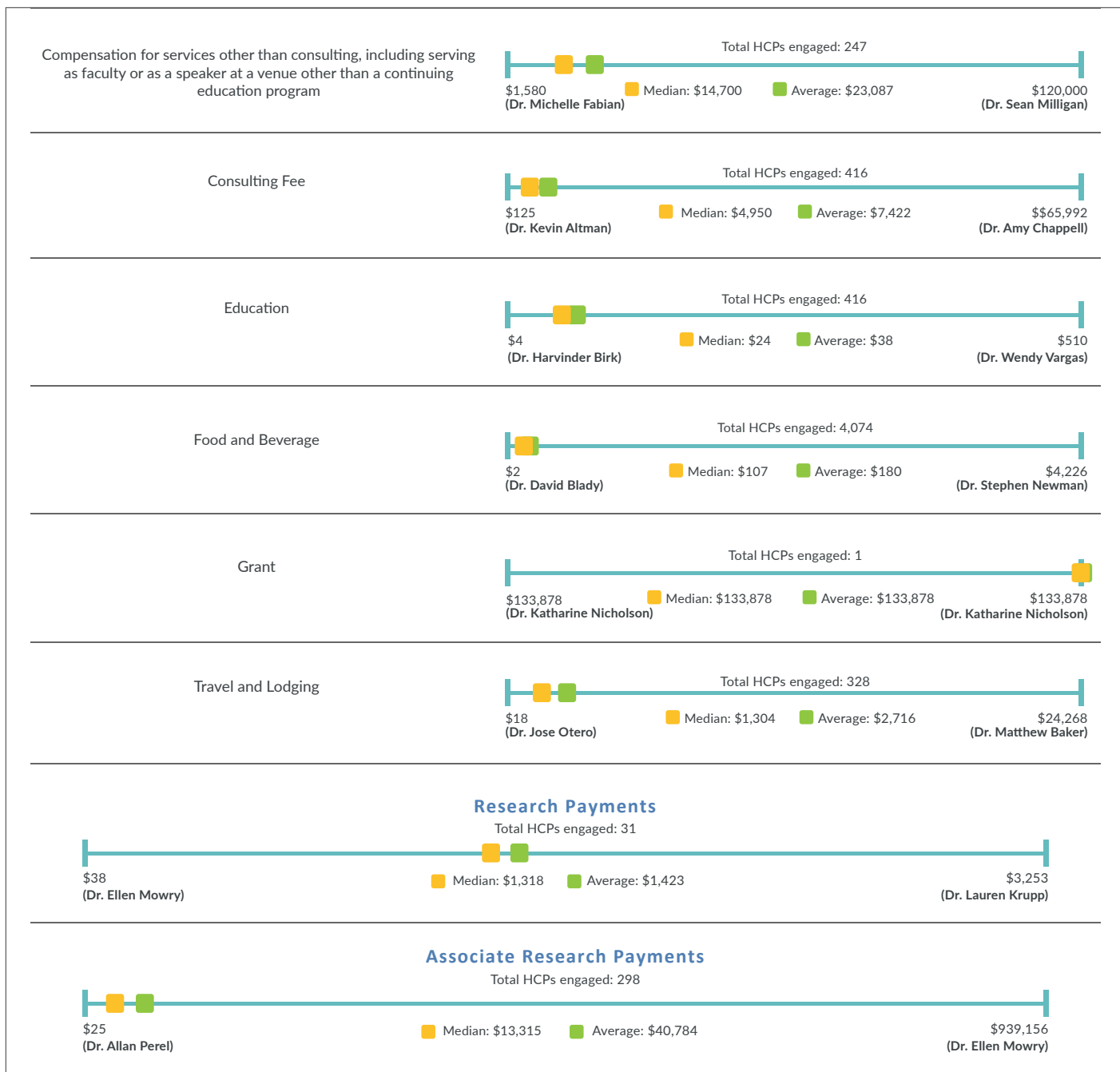


Professional Network and Geo locations of Top 20 CNS experts engaged by Biogen (General Payments 2017). The network is based on co-authorship, research activities, speaking engagements and organizations of CNS Experts.

## Biogen - CNS Experts' Experience and Engagement by Payment Types



# Biogen - Payments across Engagement Types (2017)



## Total CNS experts engaged by Biogen for Consulting, Speaking and Research (2017)

- Consulting - 416
- Speaking - 247
- Research - 31

## Top 5 conditions treated by CNS experts engaged by Biogen (2017)

- Epilepsy
- Seizures
- Dementia
- Depression
- Major Depressive Disorder

# Competitor View of HCP Engagement

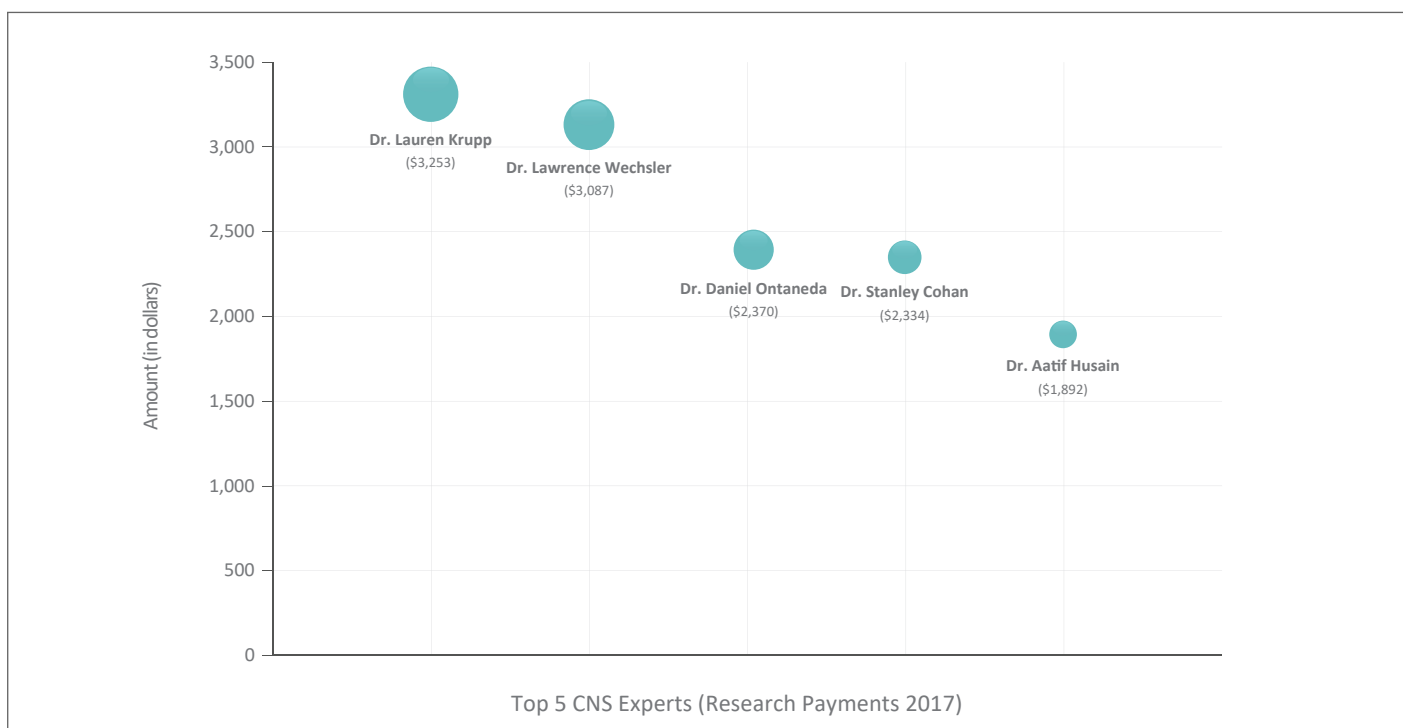
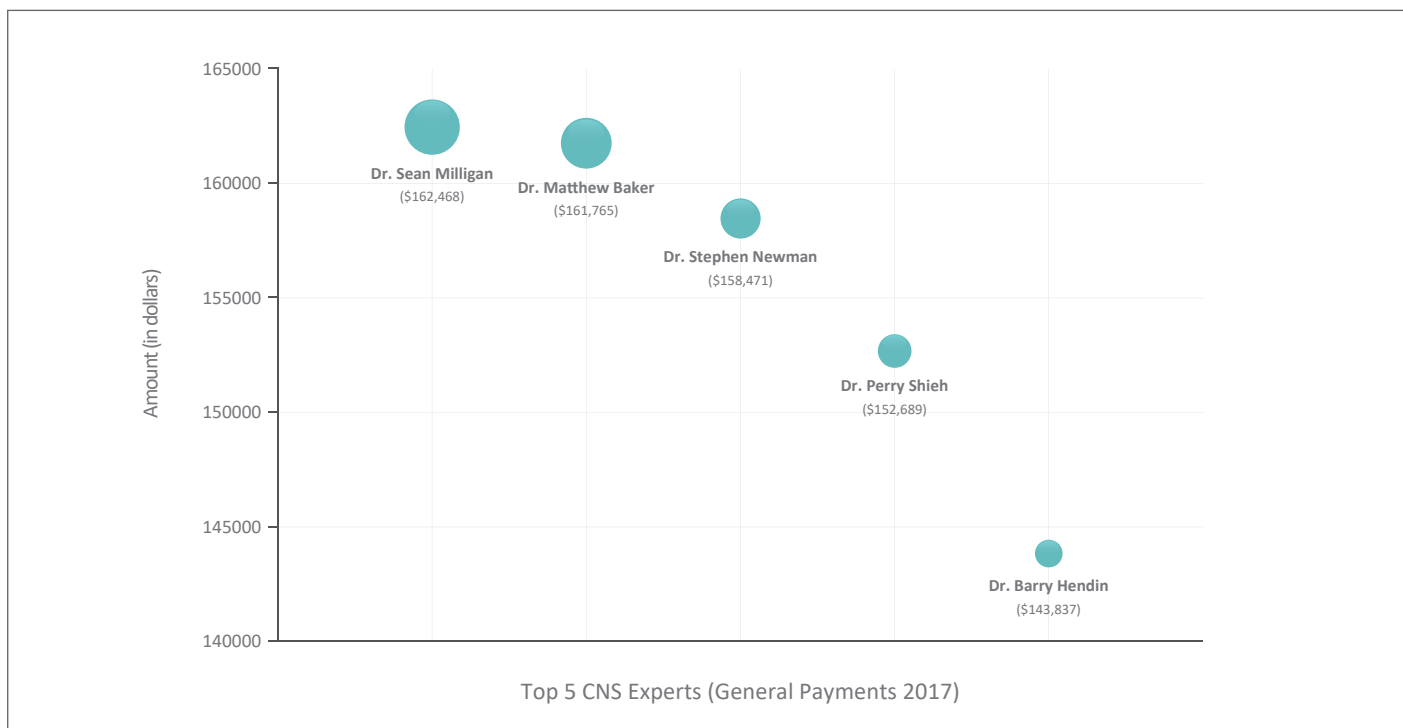
Top 20 CNS experts engaged by Biogen and their competitors (General Payments 2017)

↑ = Paid more than Biogen

↓ = Paid less than Biogen

No.	HCP Name	Companies					
1	<b>Dr. Sean M Milligan</b> (Texas)	Biogen \$162,468	Teva Pharma \$5,457 ↓	Allergan \$256 ↓	Genentech \$174 ↓	EMD Serono \$151 ↓	
2	<b>Dr. Matthew James Baker</b> (Florida)	Biogen \$161,765	Genzyme \$175,099 ↑	Avanir Pharma \$12,932 ↓	Mallinckrodt \$6,980 ↓	Teva Pharma \$6,921 ↓	
3	<b>Dr. Stephen Mark Newman</b> (New York)	Biogen \$158,471	Genzyme \$105,134 ↓	Teva Pharma \$23,576 ↓	Mallinckrodt \$18,641 ↓	Genentech \$14,693 ↓	
4	<b>Dr. Perry Boryee Shieh</b> (California)	Biogen \$152,689	Sarepta Therapeutics \$18,942 ↓	Alexion Pharma \$15,545 ↓	PTC Therapeutics \$5,152 ↓	Genentech \$2,697 ↓	
5	<b>Dr. Barry A Hendin</b> (Arizona)	Biogen \$143,837	Genzyme \$58,525 ↓	Genentech \$50,421 ↓	Teva Pharma \$26,532 ↓	Mallinckrodt \$21,812 ↓	
6	<b>Dr. Bhupendra O Khatri</b> (Wisconsin)	Biogen \$142,440	Genzyme \$225,036 ↑	Teva Pharma \$55,334 ↓	EMD Serono \$30,377 ↓	Genentech \$26,868 ↓	
7	<b>Dr. Katharine Ames Nicholson</b> (Massachusetts)	Biogen \$133,878	Mitsubishi Tanabe \$12 ↓				
8	<b>Dr. Kenneth Alan Mankowski</b> (Ohio)	Biogen \$124,795	Genzyme \$146,820 ↑	Acorda Therapeutics \$34,563 ↓	Genentech \$28,017 ↓	Teva Pharma \$9,300 ↓	
9	<b>Dr. Sibyl Wray</b> (Tennessee)	Biogen \$122,464	Genzyme \$102,819 ↓	Genentech \$40,344 ↓	EMD Serono \$9,338 ↓	Abbvie \$4,696 ↓	
10	<b>Dr. Bruce L Hughes</b> (Iowa)	Biogen \$119,516	Genentech \$50,442 ↓	Genzyme \$42,761 ↓	Acorda Therapeutics \$18,522 ↓	EMD Serono \$10,811 ↓	
11	<b>Dr. Derrick Scott Robertson</b> (Florida)	Biogen \$113,943	Genzyme \$67,198 ↓	Genentech \$21,106 ↓	EMD Serono \$13,979 ↓	Mallinckrodt \$10,872 ↓	
12	<b>Dr. Daniel S. Bandari</b> (California)	Biogen \$109,052	Genzyme \$180,025 ↑	Teva Pharma \$109,101 ↑	EMD Serono \$60,145 ↓	Acorda Therapeutics \$11,999 ↓	
13	<b>Dr. Douglas Jeffery</b> (North Carolina)	Biogen \$104,114	Genzyme \$119,626 ↑	Genentech \$53,008 ↓	Mallinckrodt \$29,232 ↓	Teva Pharma \$11,514 ↓	
14	<b>Dr. Mark J Tullman</b> (Missouri)	Biogen \$103,475	Genzyme \$154,124 ↑	Genentech \$43,959 ↓	EMD Serono \$16,776 ↓	Acorda Therapeutics \$16,640 ↓	
15	<b>Dr. John Francis Foley</b> (Utah)	Biogen \$99,779	Genentech \$18,136 ↓	Teva Pharma \$211 ↓	EMD Serono \$209 ↓	Sunovion \$197 ↓	
16	<b>Dr. Stanley L Cohan</b> (Oregon)	Biogen \$99,449	Genzyme \$35,680 ↓	Genentech \$19,093 ↓	Novartis \$5,330 ↓	Acorda Therapeutics \$350 ↓	
17	<b>Dr. Heidi Crayton</b> (Virginia)	Biogen \$95,509	Genzyme \$210,209 ↑	Genentech \$51,439 ↓	Acorda Therapeutics \$20,519 ↓	Novartis \$15,371 ↓	
18	<b>Dr. Thomas P. Leist</b> (Pennsylvania)	Biogen \$93,404	Genzyme \$69,390 ↓	EMD Serono \$46,526 ↓	Genentech \$29,343 ↓	Teva Pharma \$26,052 ↓	
19	<b>Dr. Ronald S. Murray</b> (Colorado)	Biogen \$92,907	Genzyme \$109,854 ↑	Teva Pharma \$22,516 ↓	Acorda Therapeutics \$150 ↓	Genentech \$46 ↓	
20	<b>Dr. Edward J Fox</b> (Texas)	Biogen \$88,913	EMD Serono \$37,760 ↓	Teva Pharma \$26,373 ↓	Genentech \$22,949 ↓	Genzyme \$13,857 ↓	

## Biogen - Top 5 CNS Experts (General and Research Payments 2017)



Aissel Technologies specializes in cutting-edge medical Thought Leader solutions. konectar, our KOL Management Platform has the most innovative features built using robust technologies for data analytics and reporting, sophisticated algorithms using machine learning for client-specific KOL identification. With a really cool user interface, users can Discover, Profile and Engage the right medical experts with konectar.

### Contact Us

Email : [sales@aissel.com](mailto:sales@aissel.com) | Call : +1 347 966 8181 | Web : [www.aissel.com/konectar](http://www.aissel.com/konectar)