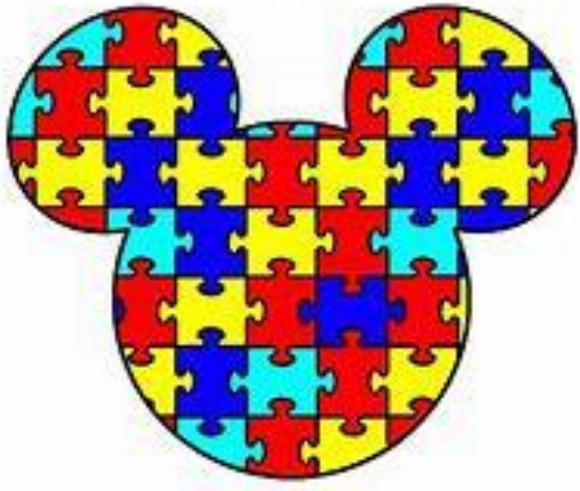




Competitive Landscape Report For Autism Spectrum Disorder

By purnendu dubey

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Company profile

Product regime of vefa ilac

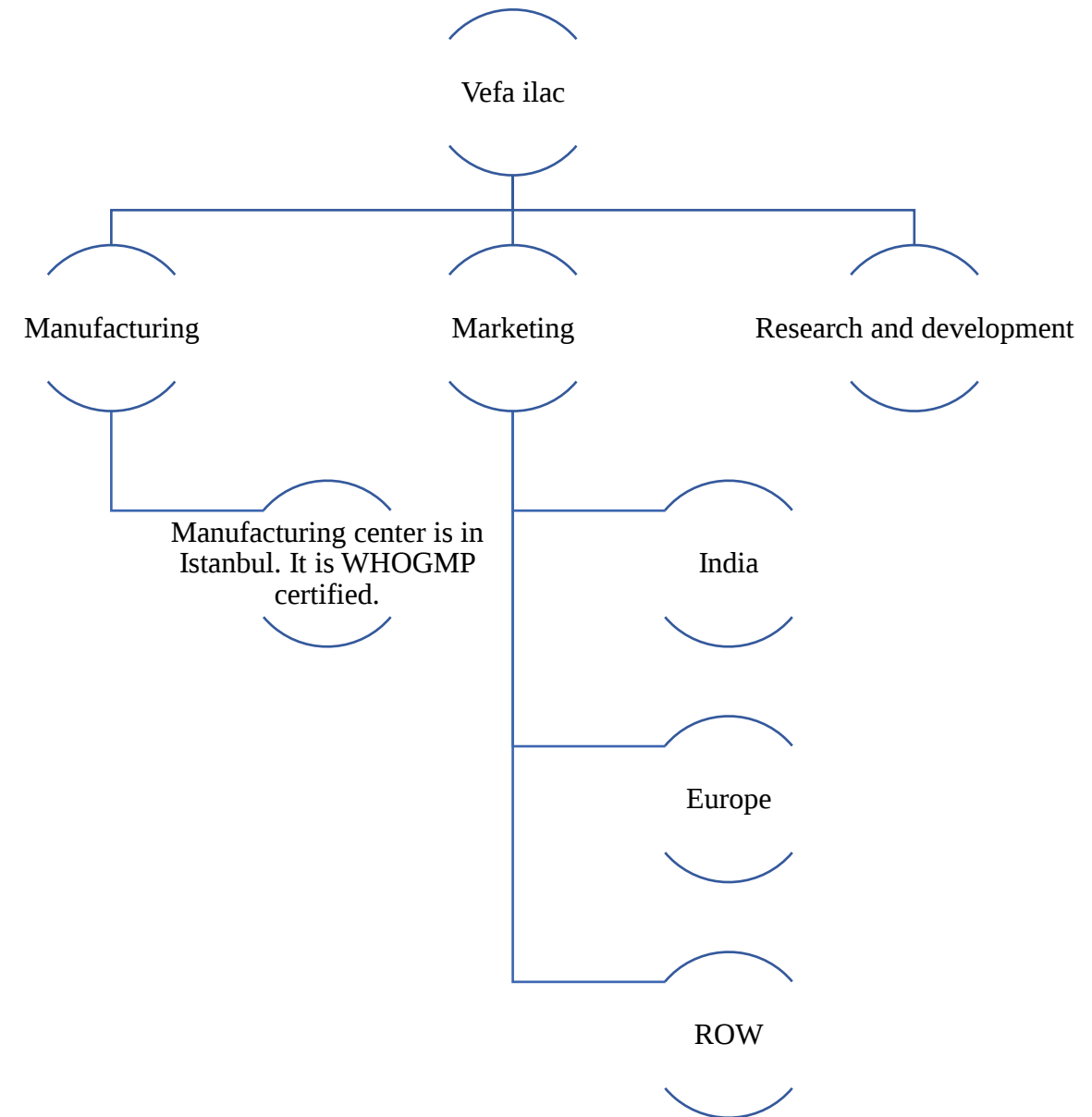
1. Pharmaceutical
2. Nutraceuticals
3. Personal Care product

In India

Headquarter- Gurgaon, Haryana

Product- cogni3

No. of employees- 12



Autism spectrum disorder is a range of mental disorders of the neuro-developmental type. It includes autism and Asperger syndrome.

Autism spectrum disorder

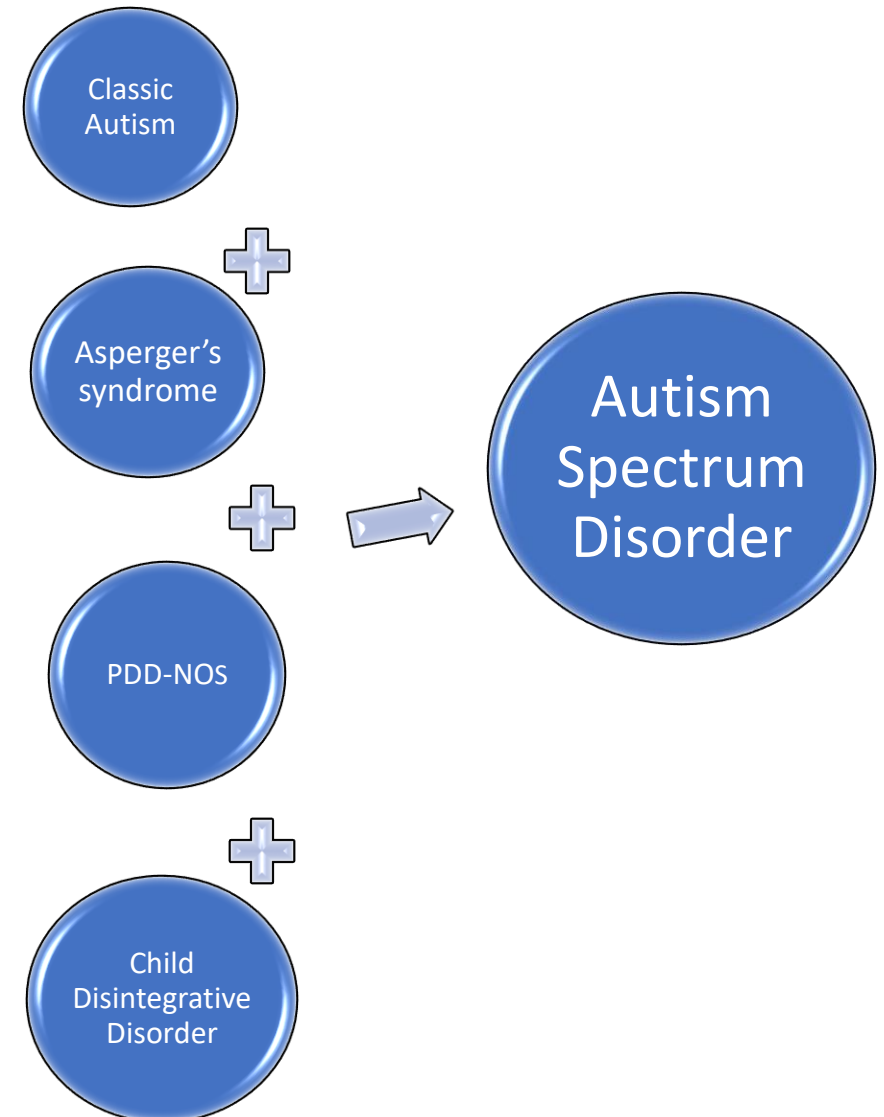
- Characterized by constant challenges with social communication and interaction, and by the presence of restricted, repetitive patterns of behavior, interests, or activities
- The symptoms are typically recognizable between one and two years of age.
- A family history of autism, and certain genetic conditions are included in risk factors of autism.
- long-term problems are difficulties in performing daily tasks, creating and keeping relationships, and maintaining a job.

Sign and symptoms

- Lack of understanding social clues
- Repetitive movements
- Self-harming nature
- Monotonous speech
- Inappropriate social interaction

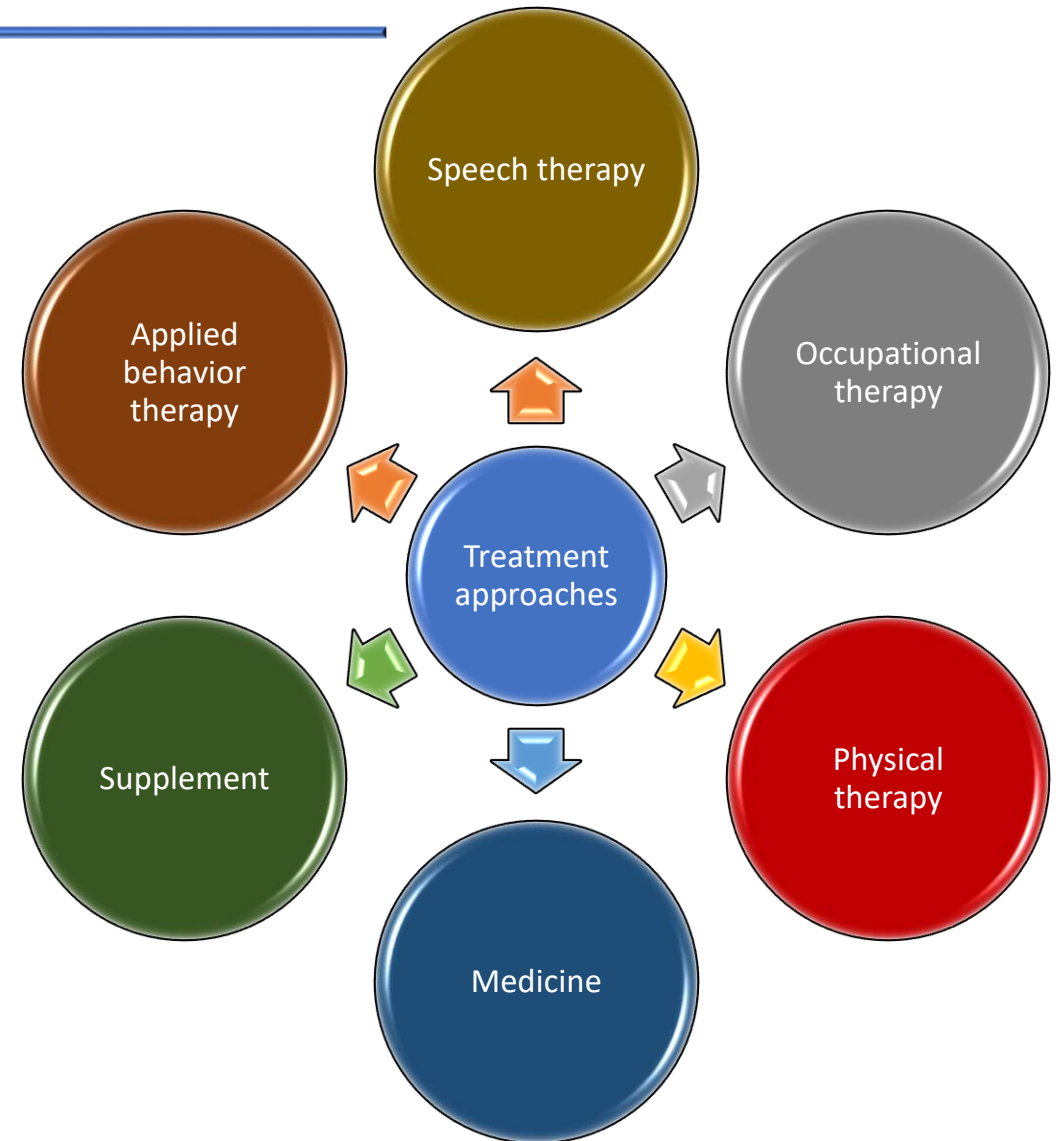
Epidemiology

- Prevalence rate in children 8 year and less-16.8 per 1,000 (1 in 59)
- Prevalence rate in children 3-17 year- 2.5%(1 in 40)
- prevalence was comparatively higher in boys (26.6/ 1,000) than in girls (6.6 /1,000)



Treatment approaches

Research tells us that a minimum of 2 year of appropriate educational setting for these children prior to the normal start of school can significantly improve the performance of children with autism spectrum syndrome. Once autism is diagnosed, the intervention instruction should begin as soon as possible.



Research objective

1

- To Study the autism spectrum disorder Market : Pipeline Review, Developer Landscape, and Competitive Insights

2

- To Study the Role of omega3 in wellness therapies and management of cognitive disorders.

Research Methodology

1

Study type

- Descriptive research

2

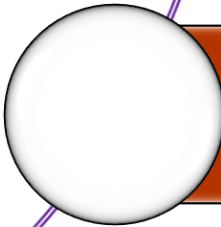
Data collection

- Secondary source

2

Source

- Websites PubMed
- Clinical trials Journals and articles



Location

- World wide (focus on India)

Reference 1

Docosahexaenoic Acid for Reading, Cognition and Behavior in Children Aged 7–9 Years: A Randomized, Controlled Trial (The DOLAB Study) defines that Omega-3 fatty acids are dietary essentials, and the current low intakes in most modern developed countries are believed to contribute to a wide variety of physical and mental health problems. Here we investigated whether such benefits might extend to the general child population.

Sample size- 224 children with a 20th centile reading performance

Result-

No effect of DHA on reading in sample

Improvement in child behavior and learning due to of PUFA in ADHD and DCD

Reference 2

Oxford Durham study-

Development co-ordination(DCD) affects 5% of the school children approximately. There is a core deficit in motor function, this leads to difficulty in learning, behavior and psychological adjustment that stays active in his adulthood. Omega3, Omega6 supplements are compared with placebo.

It was conducted over 117 children who are associated with DCD with age group of 5-12 years. The treatment was given with dietary supplements. 3 months of treatment was given in parallel groups and followed by a 1-way crossover from placebo to active treatment. Notable Improvement was found in active treatment in comparison to placebo.

Competitive Landscape



I-carnosine

FSSAI

108

SUPPLEMENT



Dha/epa

FSSAI, IFOS

60

SUPPLEMENT



Dha/epa

-

70

SUPPLEMENT

Molecule

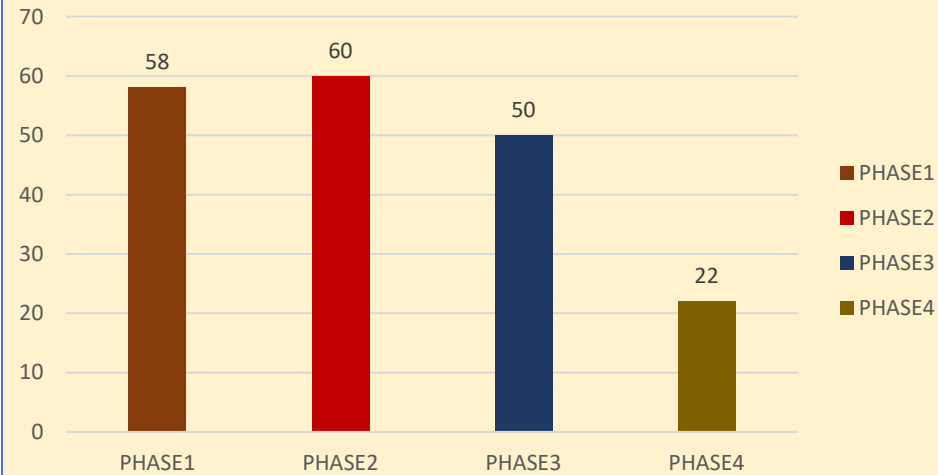
Approvals

Cost/day

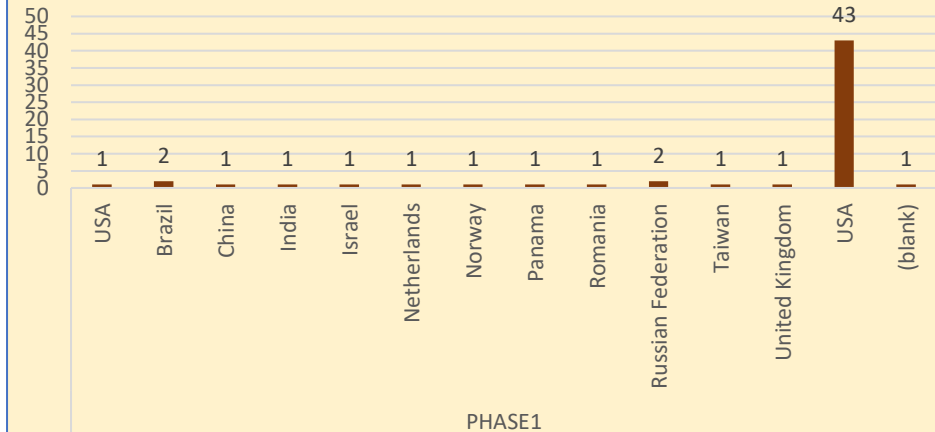
Category

PIPELINE REVIEW

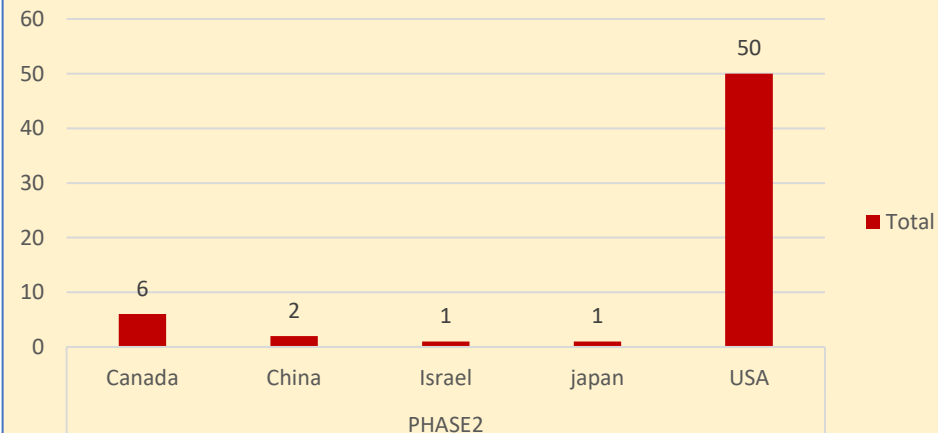
TOTAL NUBER OF DRUGS IN RESPECTIVE PHASES



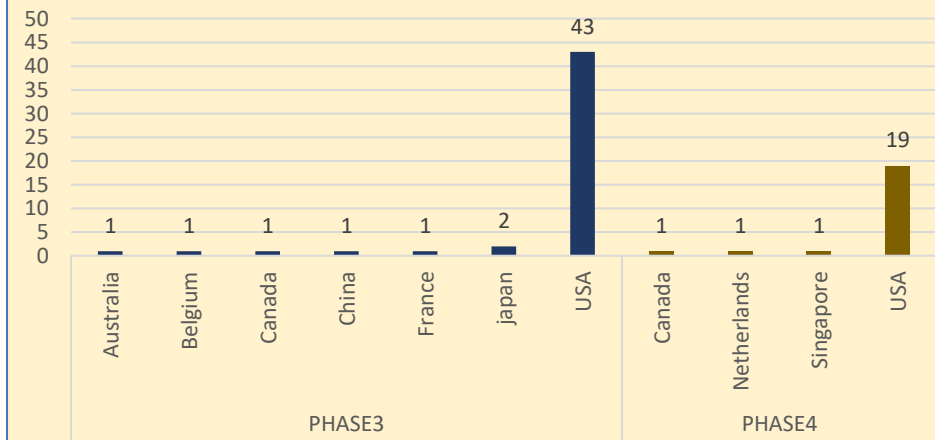
TOTAL NUBER OF DRUGS IN PHASE1 IN RESP. COUNTRIES



TOTAL NUBER OF DRUGS IN PHASES2 IN RESP. COUNTRIES



TOTAL NUBER OF DRUGS IN PHASES3&4 IN RESP. COUNTRIES



Line Of Therapy And Pipeline Assets

	Marketed	Pipeline	
First Line of Therapy	Amphetamine, Citalopram, Paroxetine, Fluvoxamine	Cm-At (curemark) , Balovaptan(Hoffman la- roach) ▲	Buspirone(Massachusetts general hospital) ▲
Second Line of Therapy	Risperidone Aripiprazole	Lisdexamfetamine Dimesylate(shire) ◆	
Supplement	Omega-3 L-Carnosine	Combination of Omega-3 And Inositol(Massachuset ts general hospital) ▲	Sulforaphane(university of california) ▲ Liquid Vit-D(university of california) ▲ Luteolin, Quercetin and Rutin Combined in A Capsule
Behavioral Therapy Approaches	Aba, Occupational Therapy , Speech Therapy	Auditory-Motor Mapping Training, Problem Solving Education, Personalized Cognitive-Behavioral Therapy ▲	
Biological	-	Stem Cell Therapy(Chaitanya hospital), ◆ Autologous Umbilical Cord Blood(perkin elmer), ▲ ASD Cb-Mnc Injection(samara medical center) ●	
Device	Cogniable	My Screener, Superpower Glass(Stanford university) ▲	

Phase1 ○ Phase2 ○
Phase3 ○ Phase4 ●

INDUSTRIAL TRIAL

Geography

USA ▲ Russia ●
India ◆ Canada ◆

Part :B Role Of Omega3 In Wellness Therapies

Omega-3 fatty acids, also known as Omega-3 oils, are polyunsaturated fatty acids (PUFAs) distinguished by the presence of a double bond three atoms away from the last methyl group in their chemical structure.



Mode
of
action

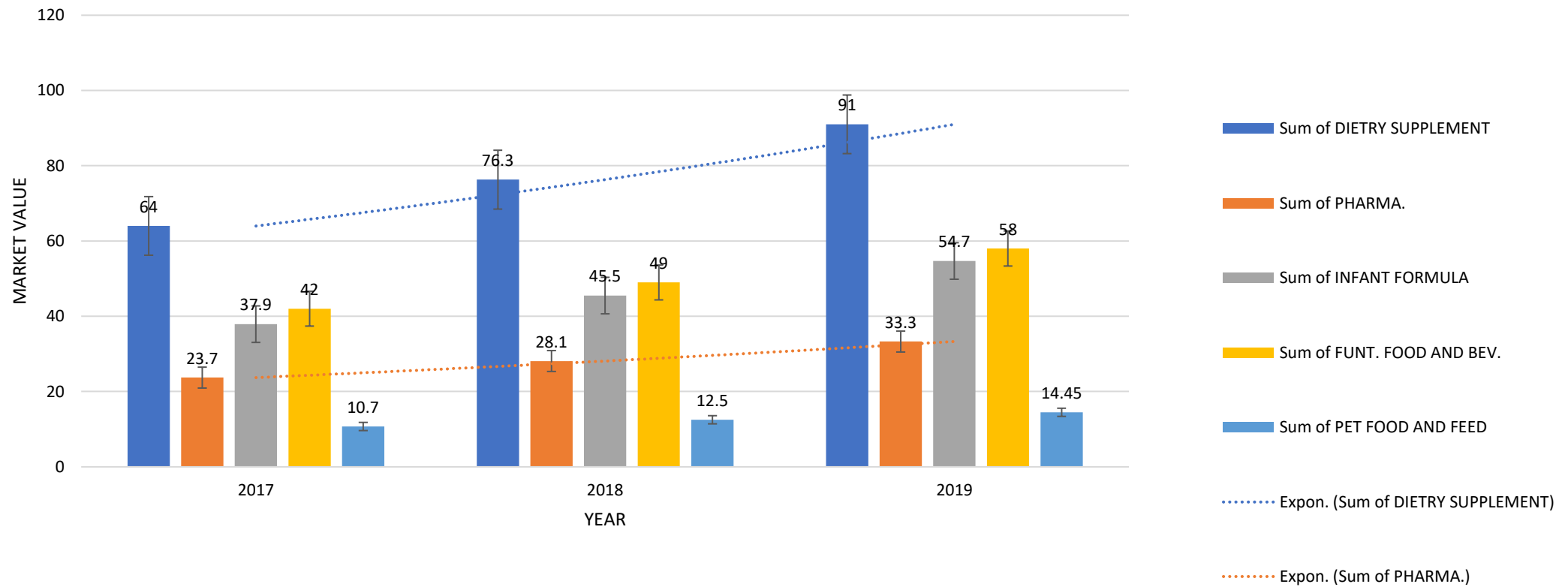
DHA in its lysophosphatidylcholine form is transported into brain by a membrane transport protein, MFSD2A, which is exclusively expressed in the endothelium of the BBB.

The omega-3 index is the total amount of EPA plus DHA in red blood cell membranes expressed as the percentage(%) of total red blood cell membrane fatty acids

Omega
3 index

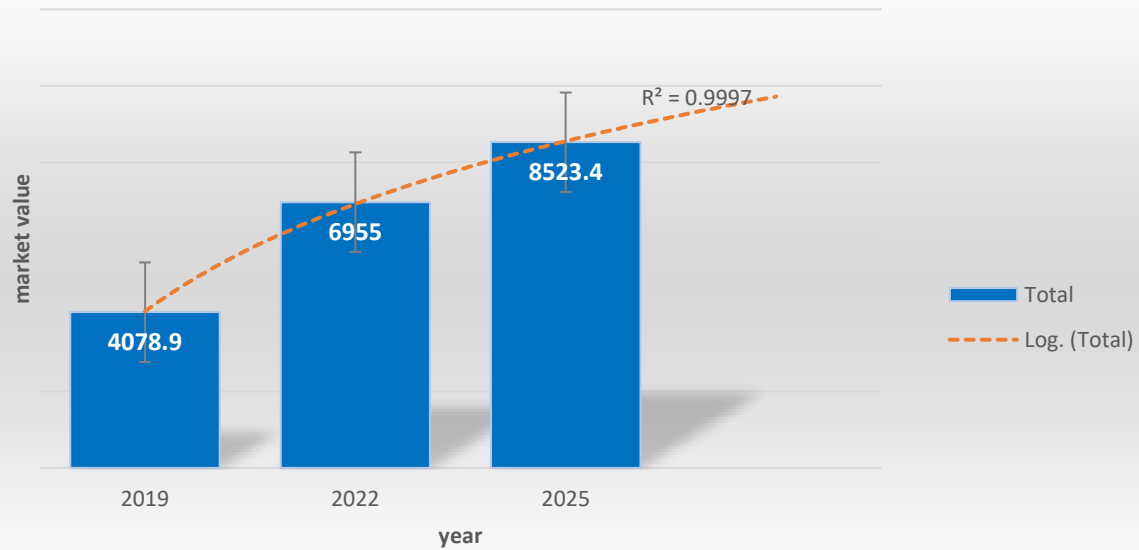
Market overview

COMPARISON BETWEEN VARIOUS MARKETS

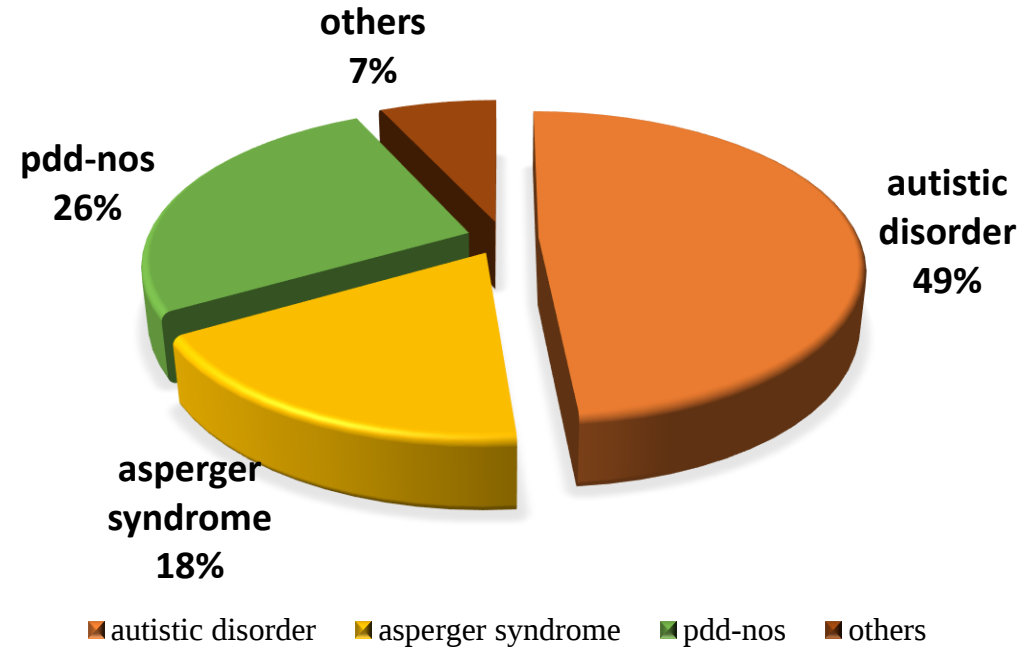


ASD MARKET OVERVIEW

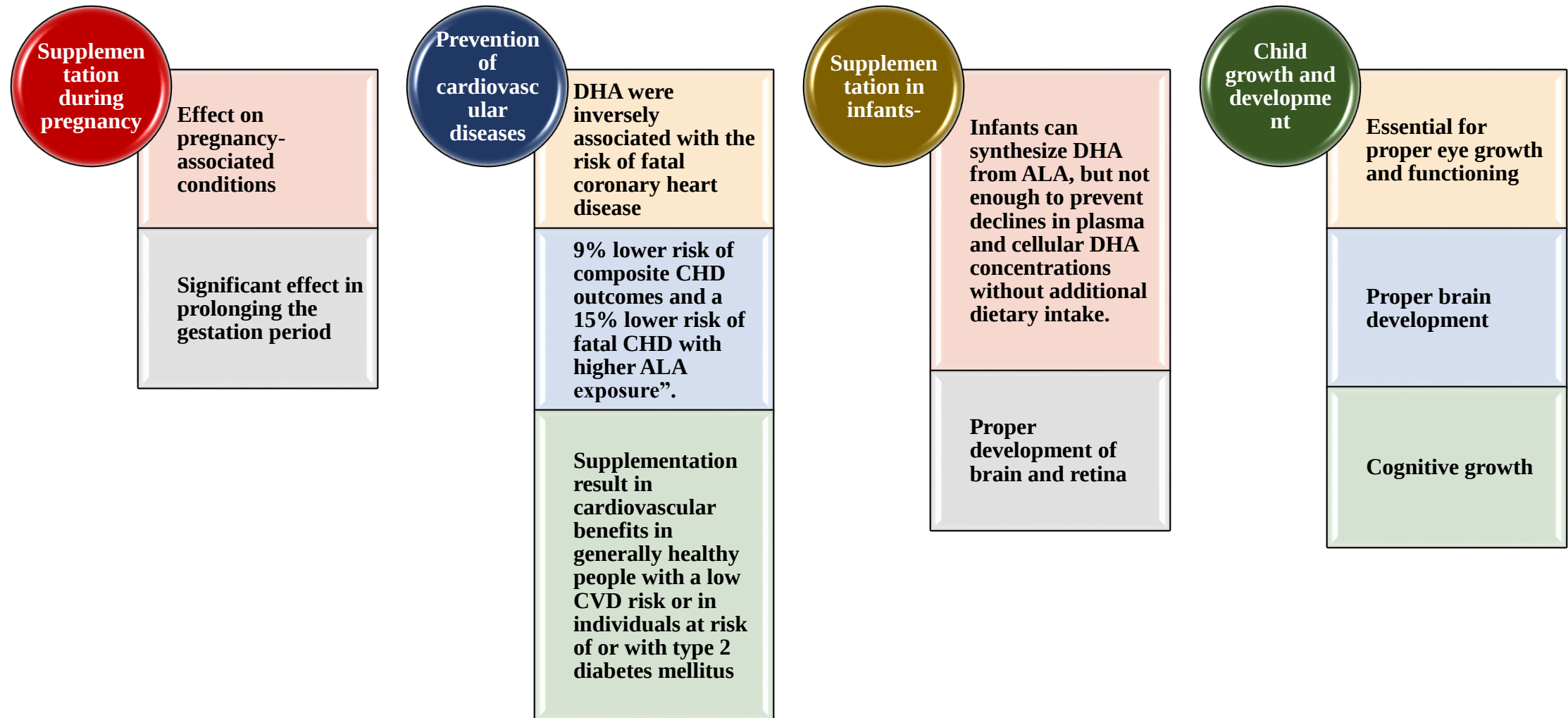
Market Prediction



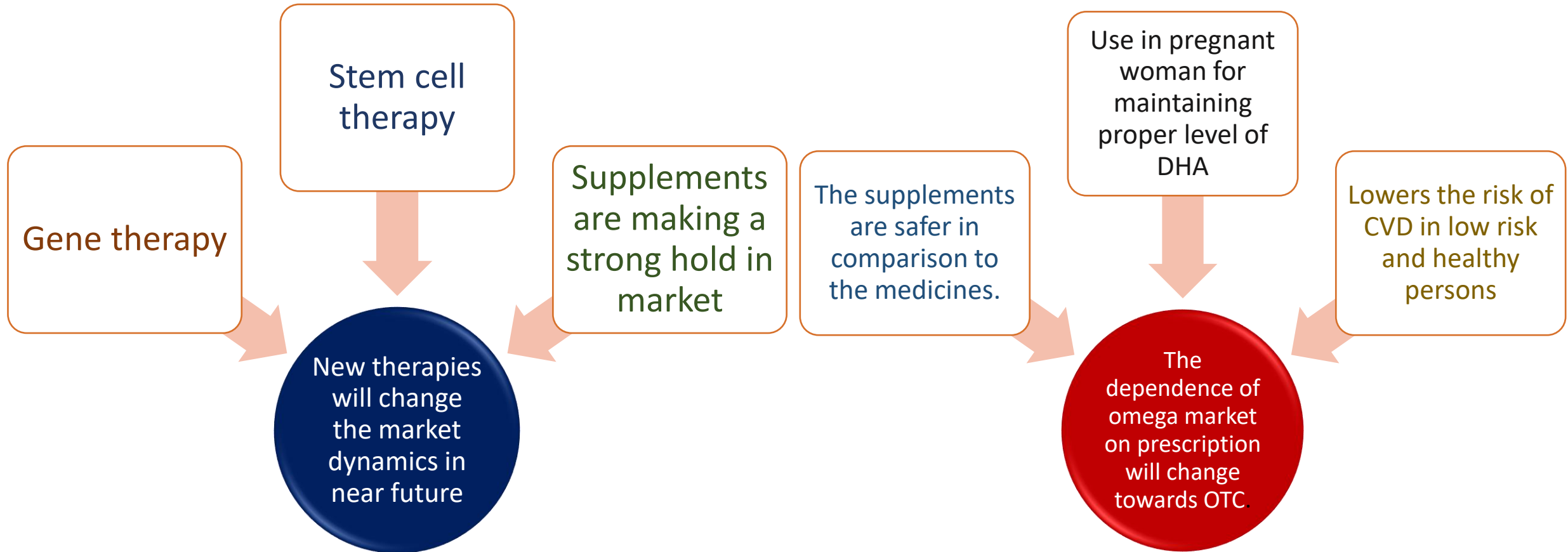
GLOBAL ASD MARKET SHARE BY TYPE



Use of Omega3 in wellness therapies



Conclusion



Reference

- Mehlman M. J. (2004). Cognition-enhancing drugs. *The Milbank quarterly*, 82(3), 483–506.
- Shahidi, F., & Ambigaipalan, P. (2018). Omega-3 Polyunsaturated Fatty Acids and Their Health Benefits. *Annual review of food science and technology*, 9, 345–381.
- Rogers, T. S., & Seehusen, D. A. (2018). Omega-3 Fatty Acids and Cardiovascular Disease. *American family physician*, 97(9), 562–564.

