

Neurometabola sjukdomar

Liza Jennions, Specialistläkare DSBS

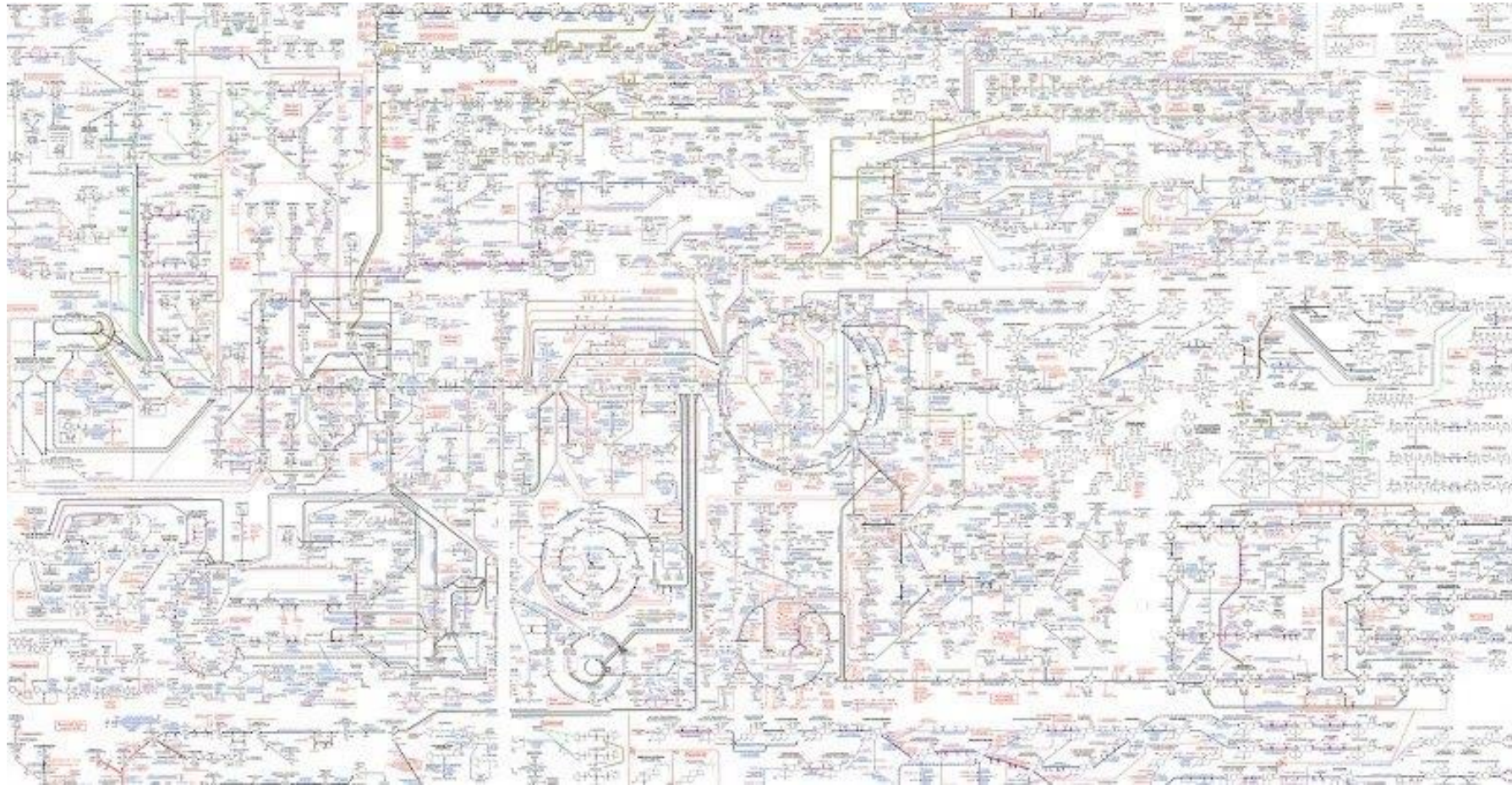


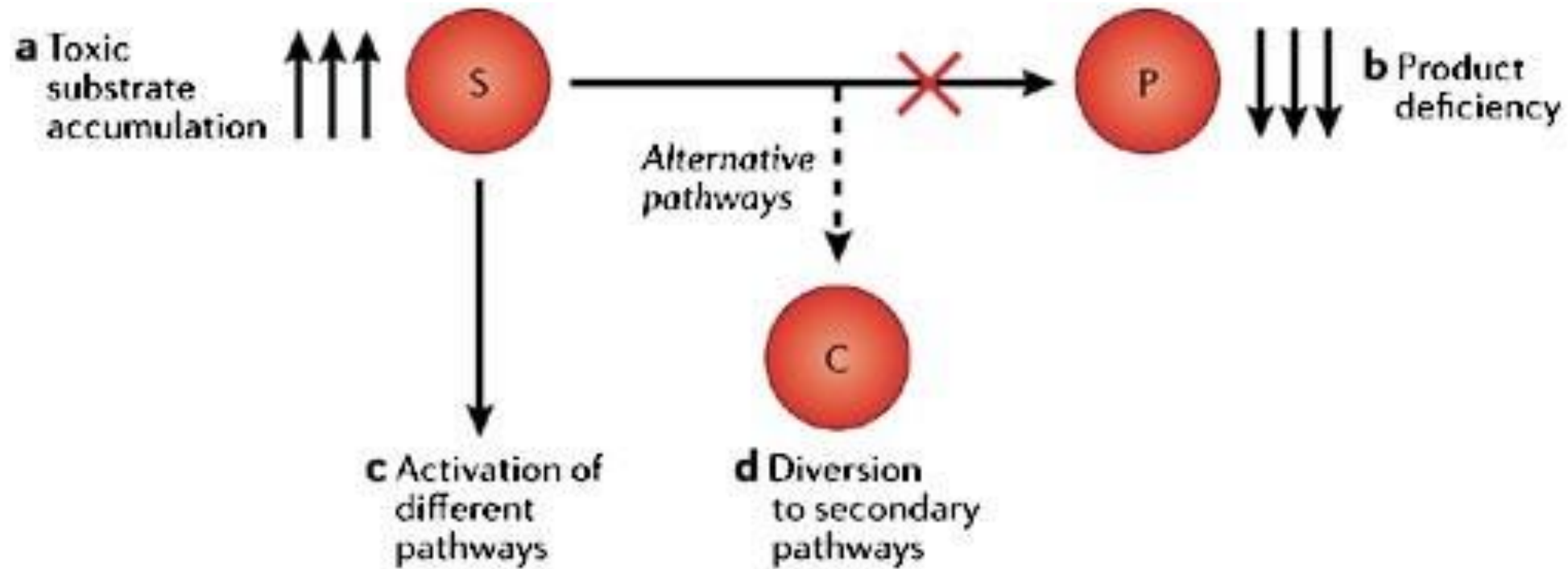
Upplägg

- Översikt sjukdomsgruppen
- Olika strategier för behandling av neurometabola sjukdomar
- Några exemplar
- Frågor

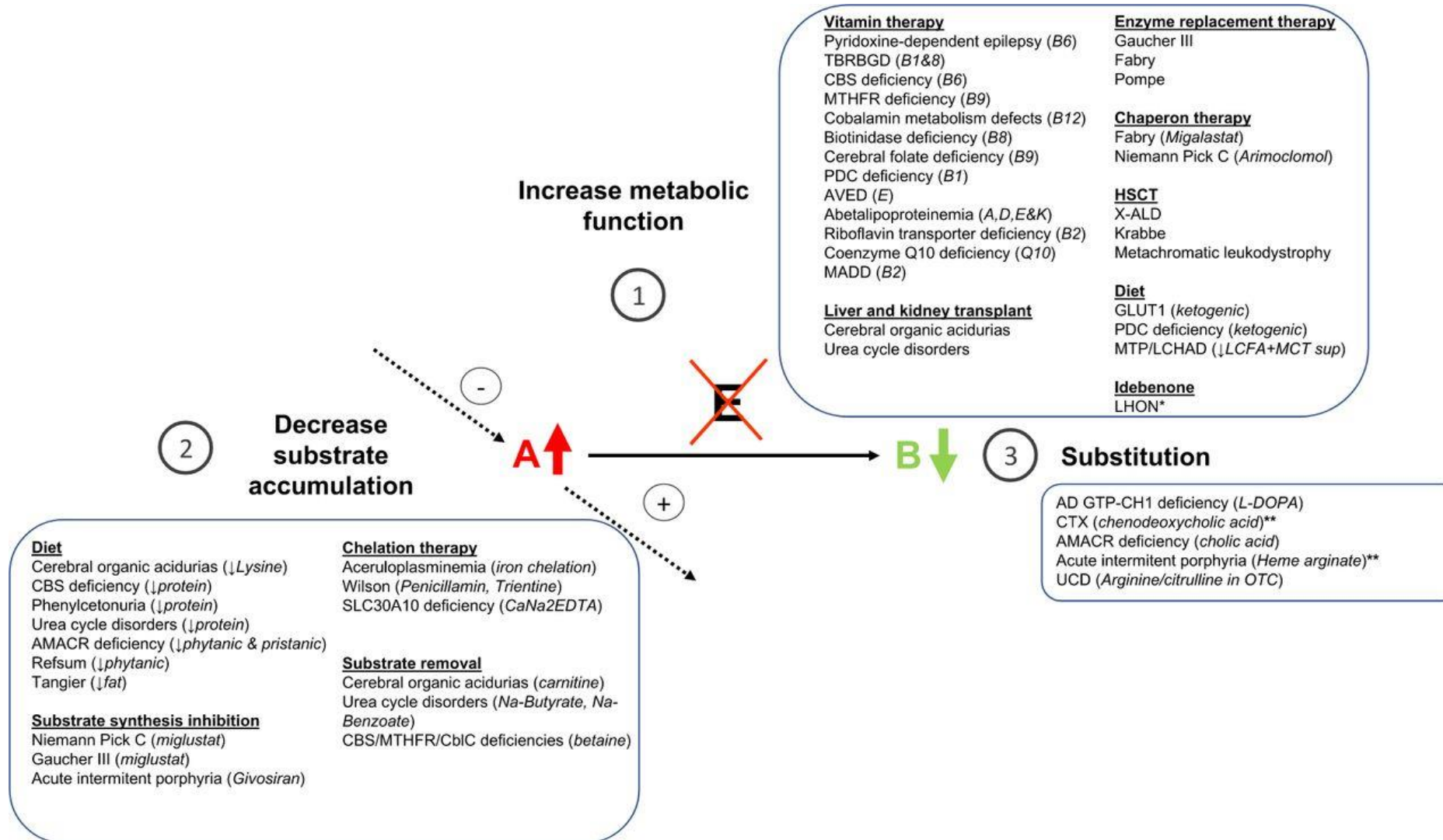


Vad är en neurometabol sjukdom?

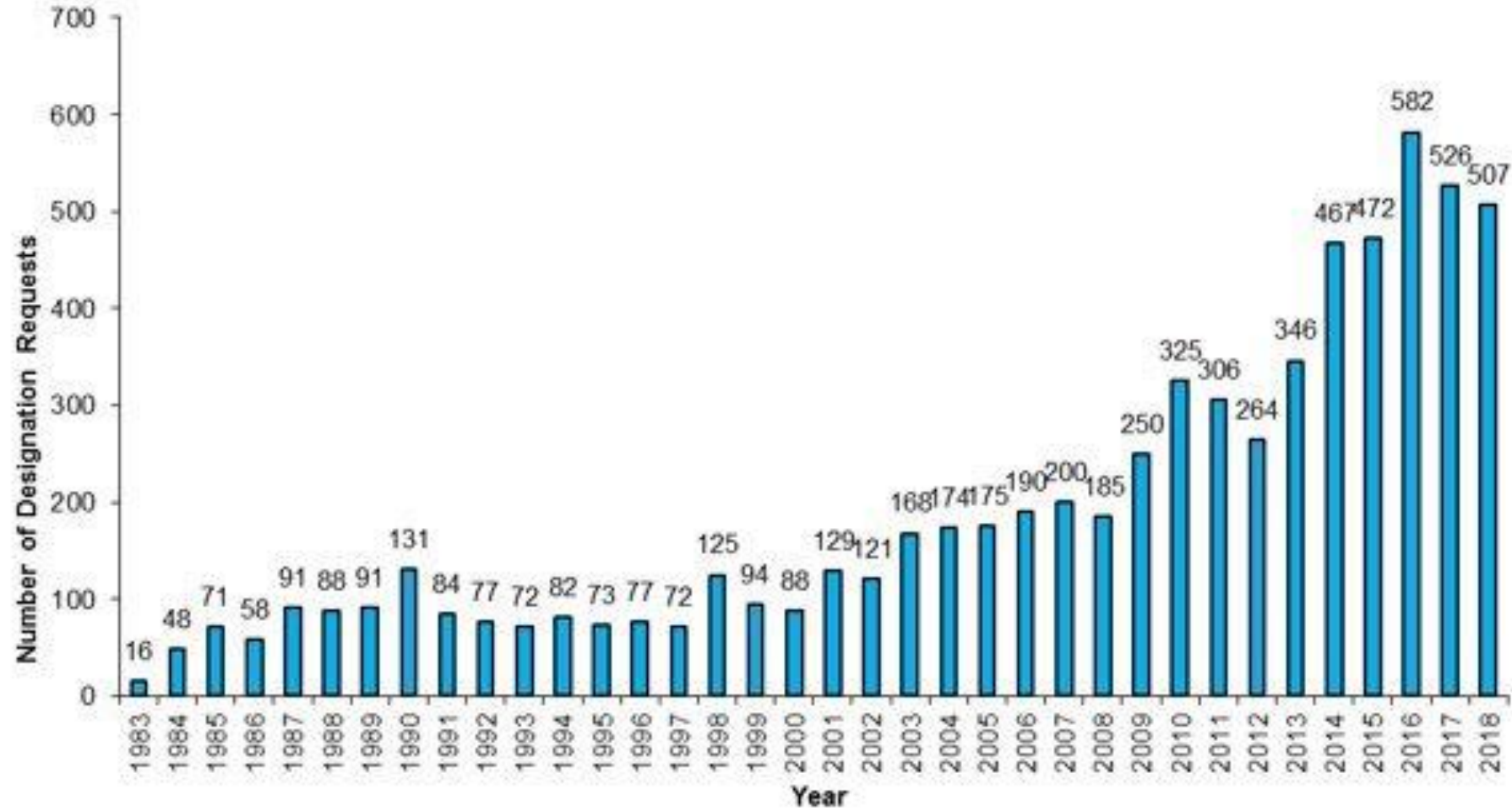




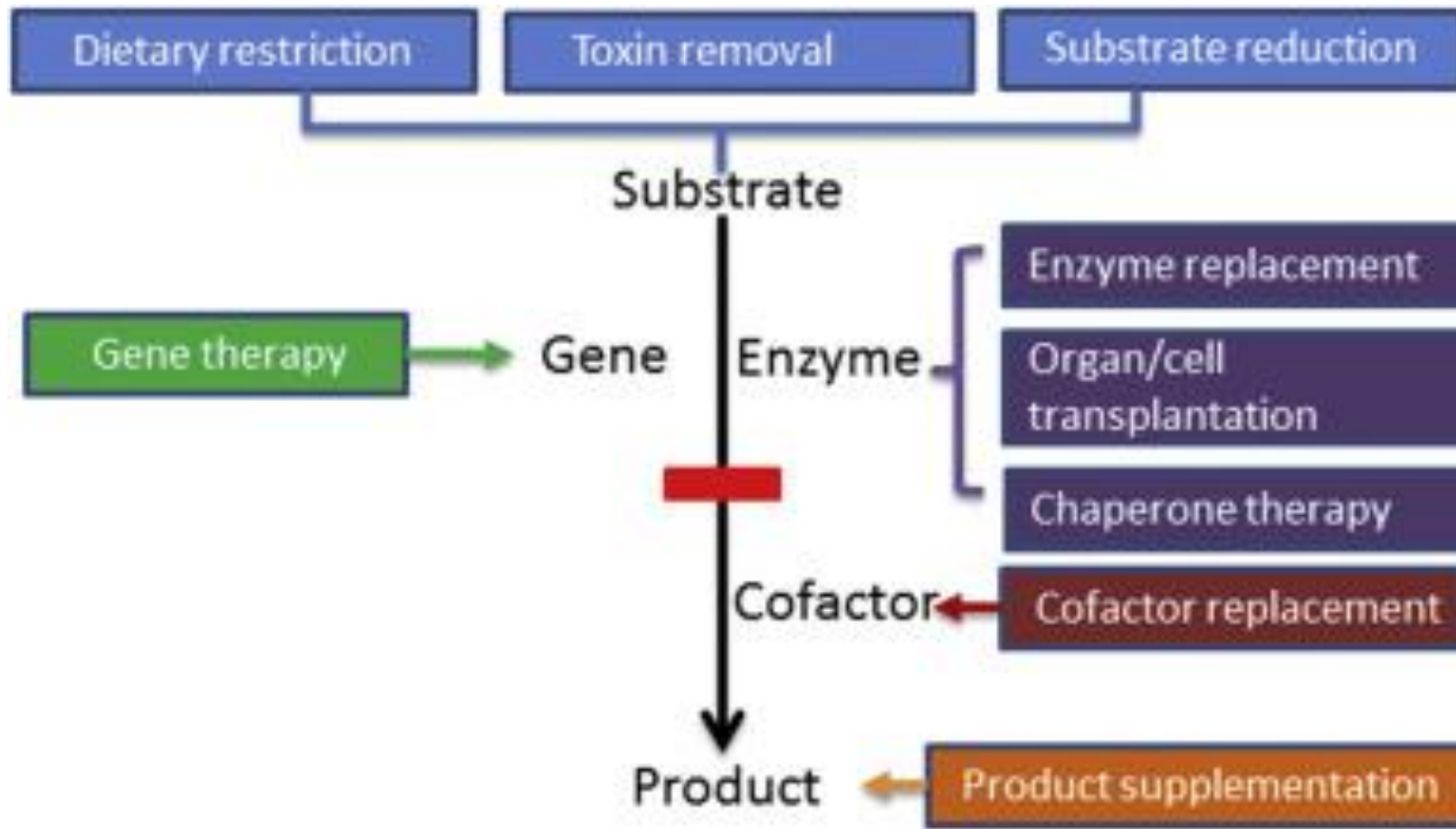
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Number of Orphan Drug Designation Requests by Year



Behandling

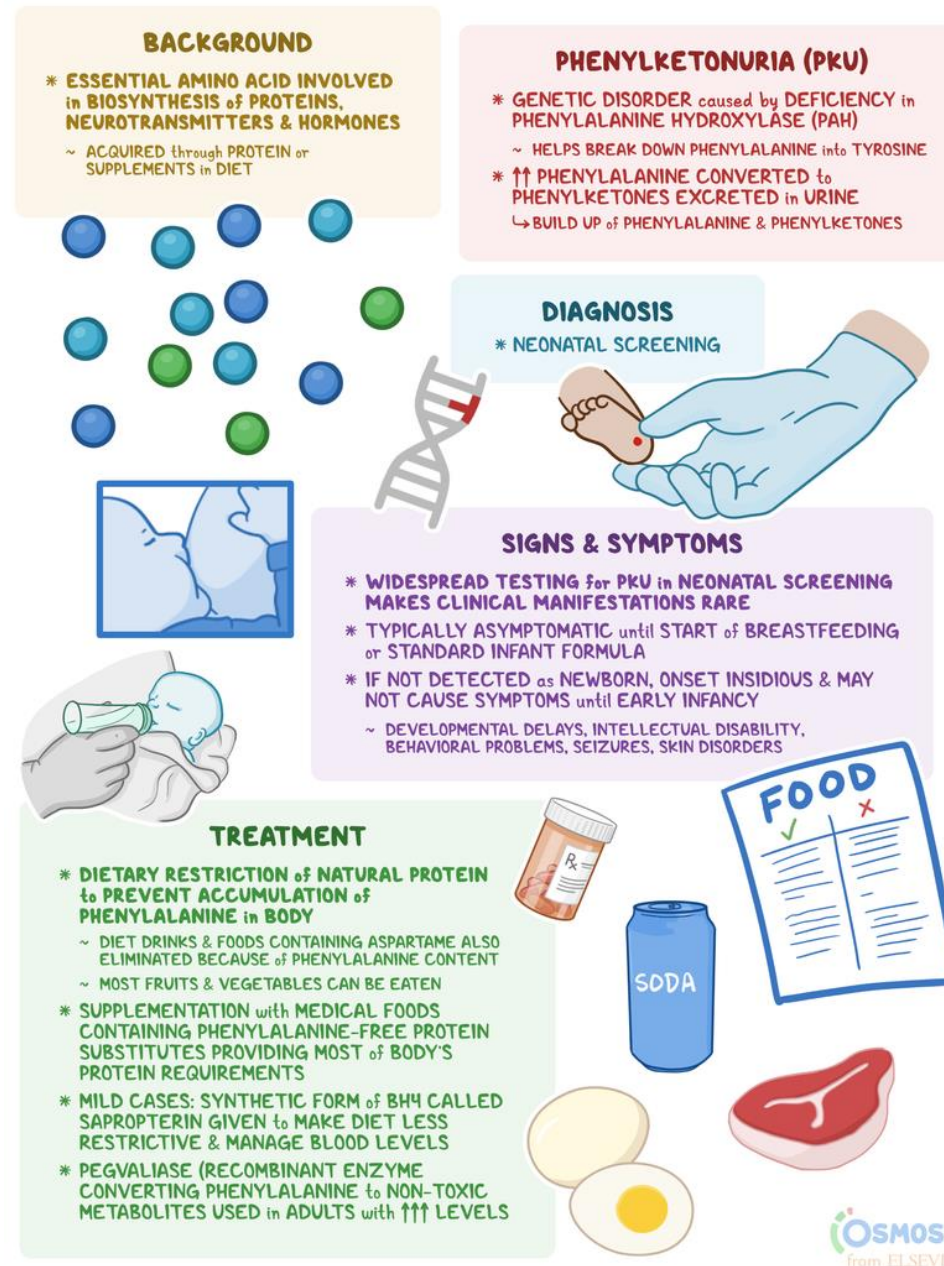


Terapier som påverkar substrat

- Diet
- Borttagning av toxiner
- Minskar produktion av substrat

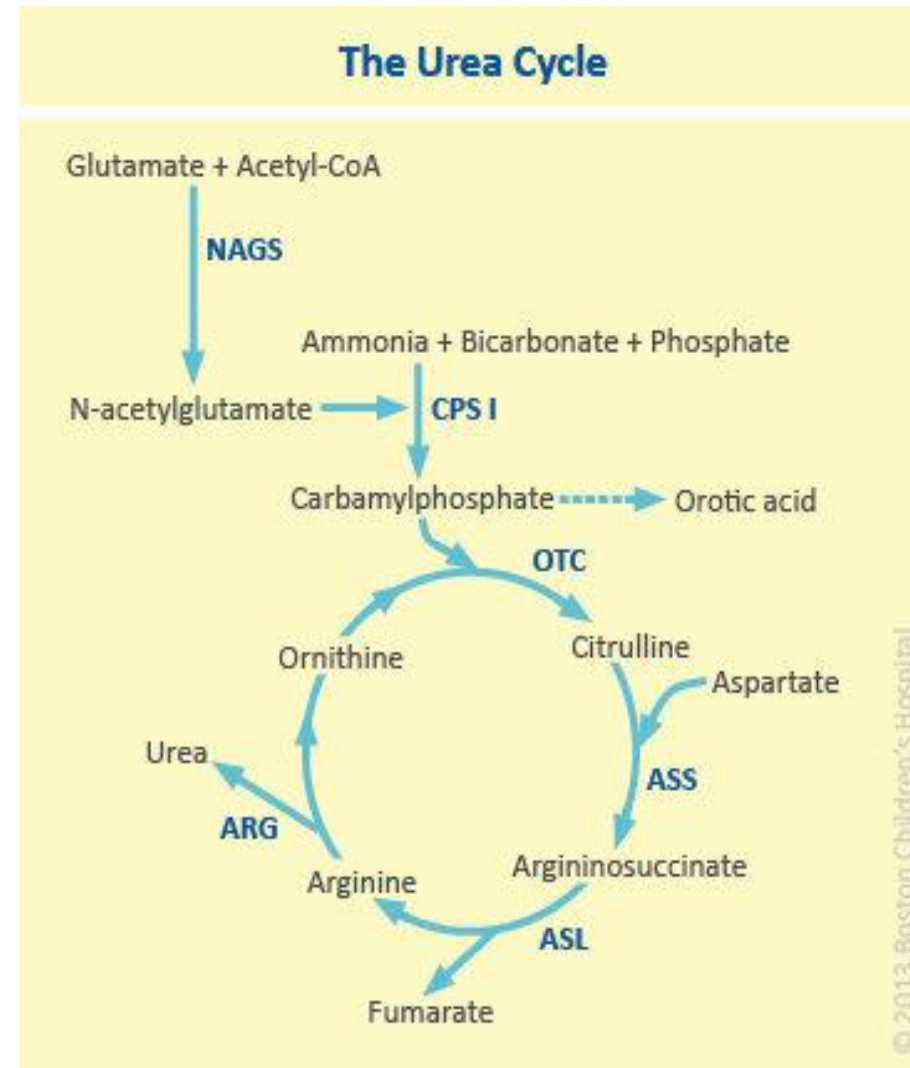


Diet

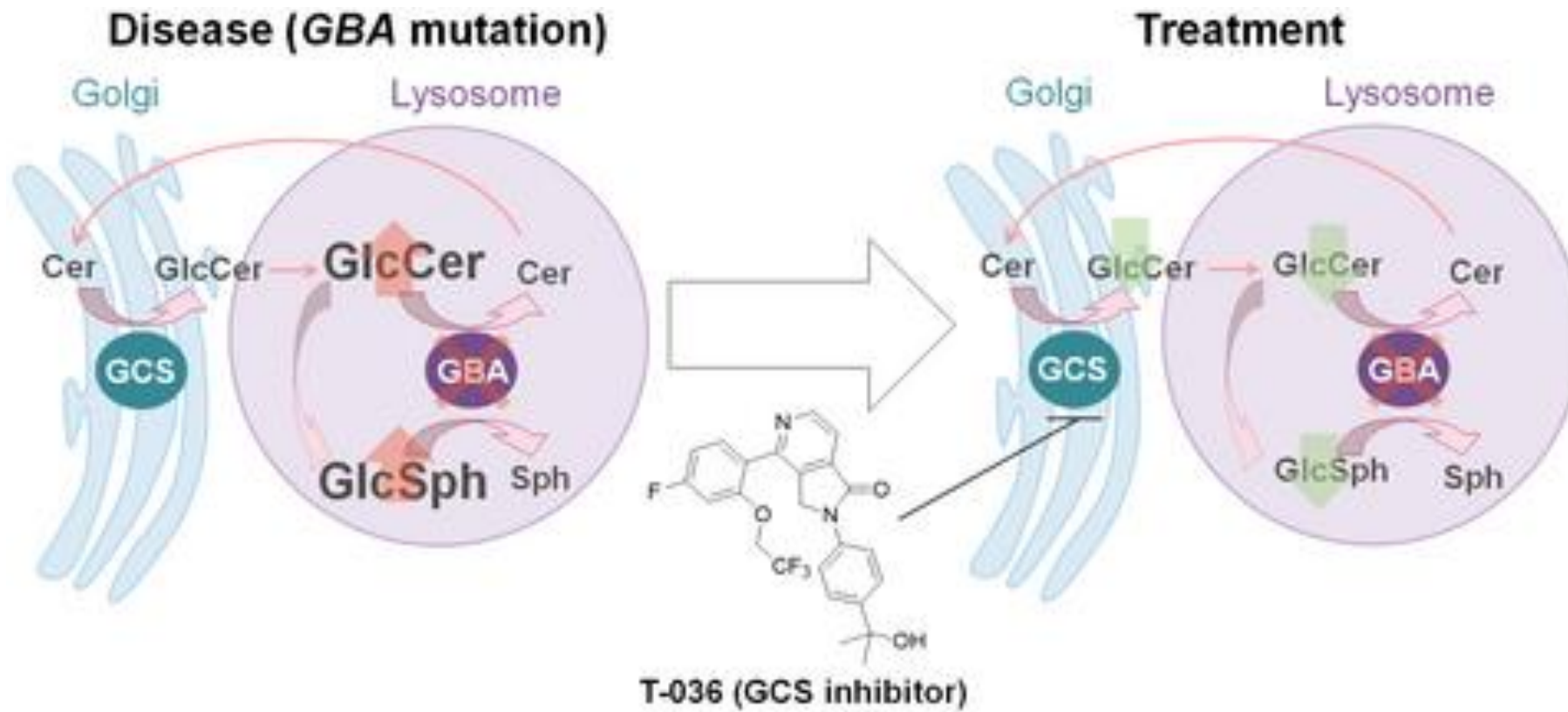


Toxin borttagning

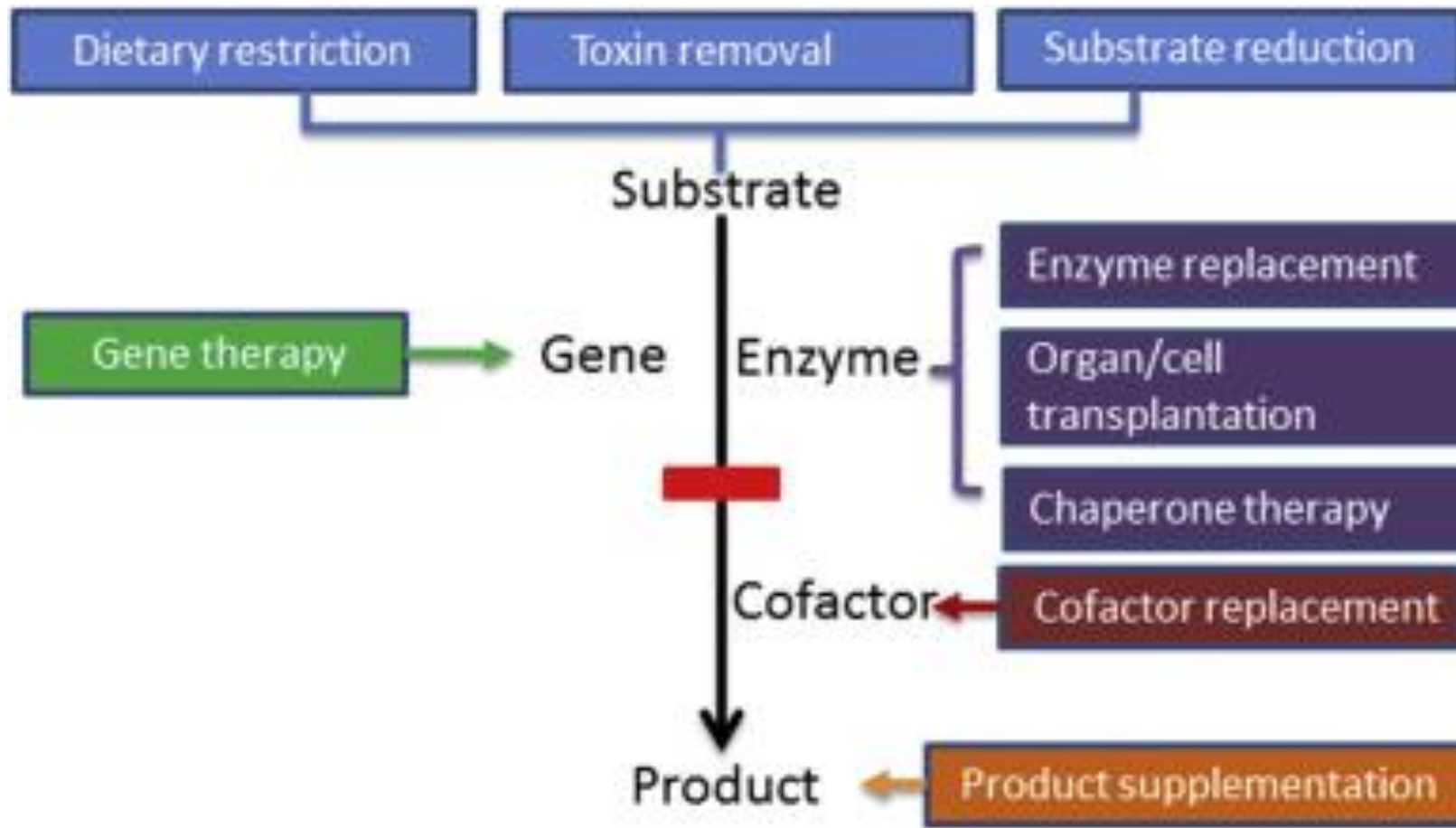
- Ammonium
- Natriumbensoat
- Carbiglu
- Fenyltyrat
- Dialys



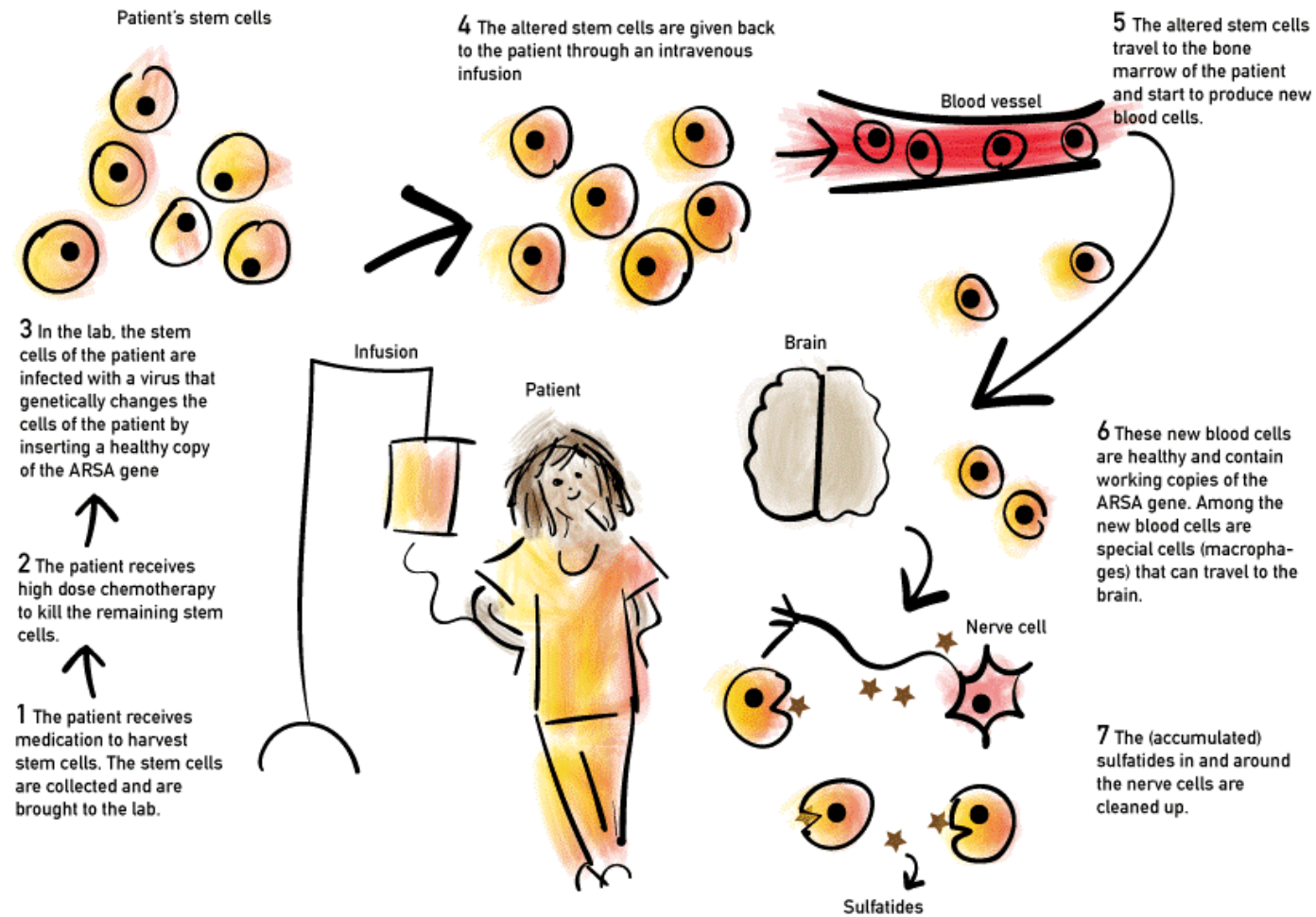
Minskar produktion av substrat



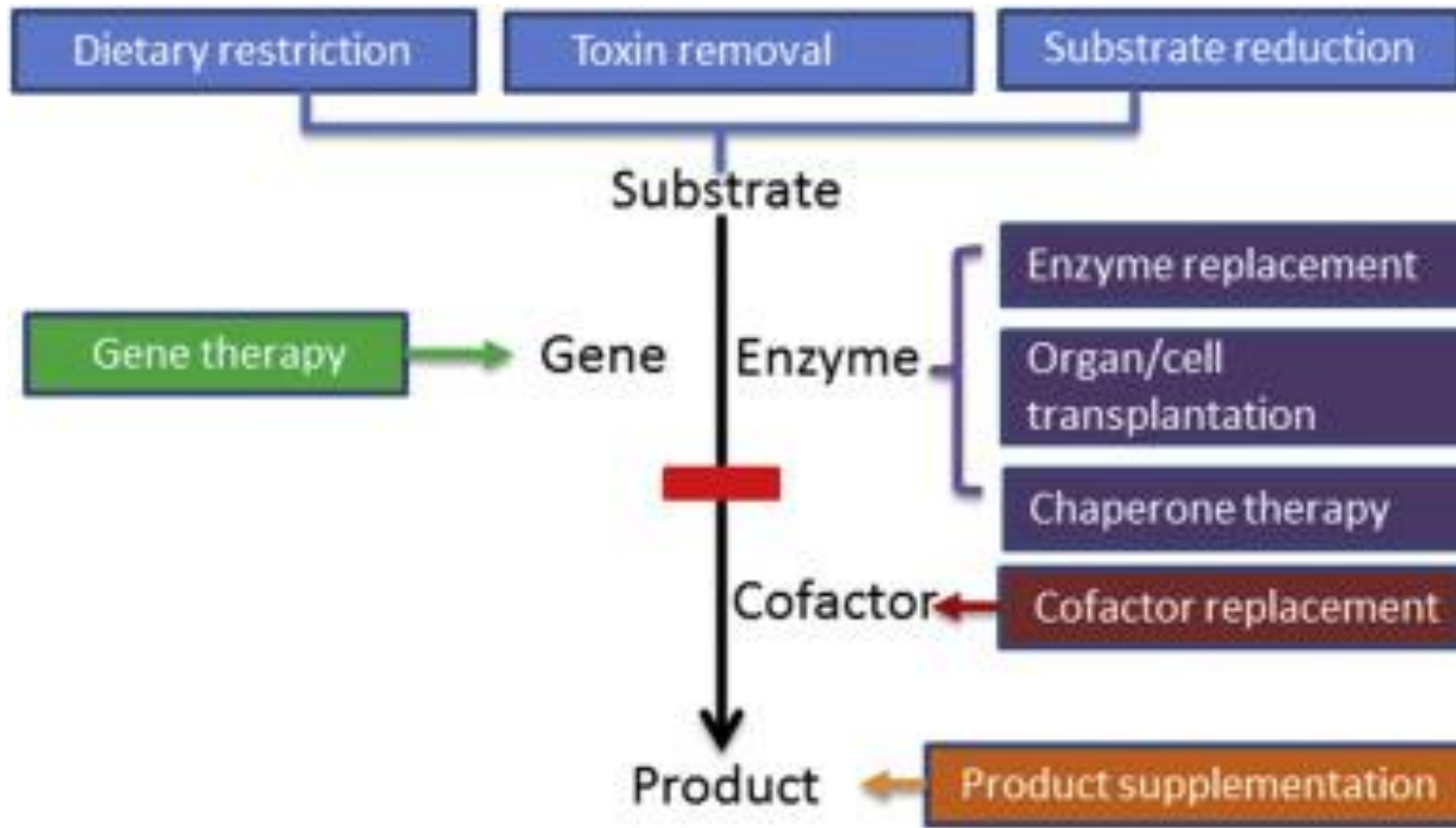
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Genterapi

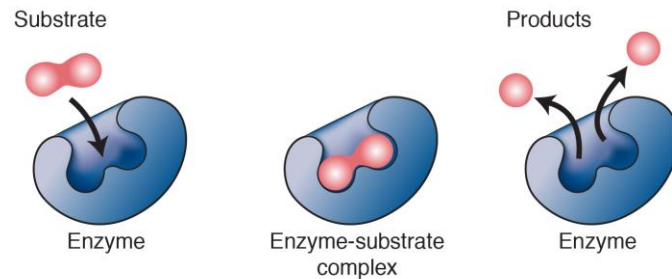


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Enzymterapi




Mechanism of enzyme activity

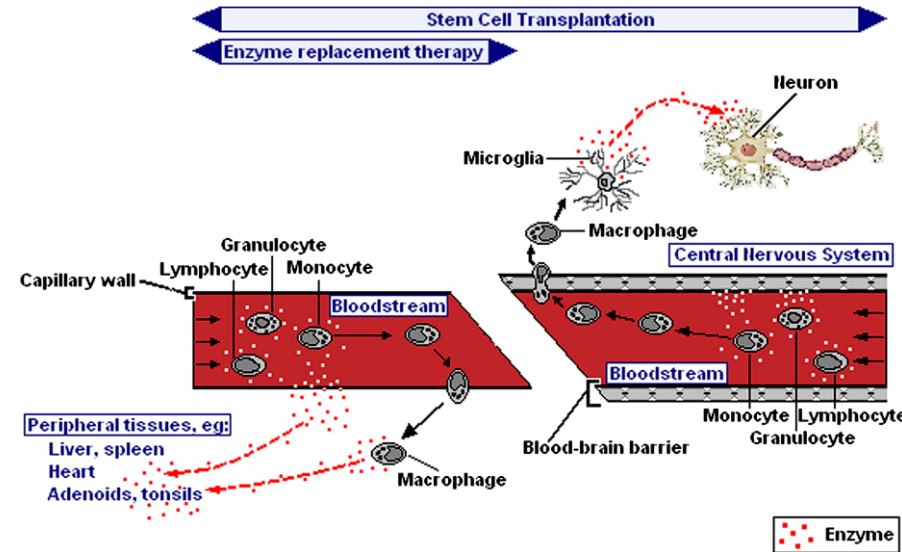


Lysosomal storage disorder	Defective enzyme	Enzyme replacement therapies
Type 1 Gaucher disease	β -GCCase	Imiglucerase, velaglucerase alfa and taliglucerase alfa
Fabry disease	α -Galactosidase A	Agalsidase beta and agalsidase alfa
Late infantile neuronal ceroid lipofuscinosis type 2 (CLN2 disease)	Tripeptidyl-peptidase 1	Cerliponase alfa
MPS I (Hurler–Scheie and Scheie syndromes)	α -Iduronidase	Laronidase
MPS II (Hunter syndrome)	Iduronidase-2-sulfatase	Idursulfase and idursulfase beta
MPS IV (Morquio syndrome A)	N-acetylgalactosamine-6-sulfate sulfatase	Elosulfase
MPS VI (Maroteaux–Lamy syndrome)	N-acetylgalactosamine-4-sulfatase (arylsulfatase B)	Galsulfase
MPS VII (Sly syndrome)	β -Glucuronidase	Vestronidase alfa
Pompe disease	α -Glucosidase	Alglucosidase alfa
Wolman disease	Lysosomal acid lipase deficiency	Sebelipase alfa

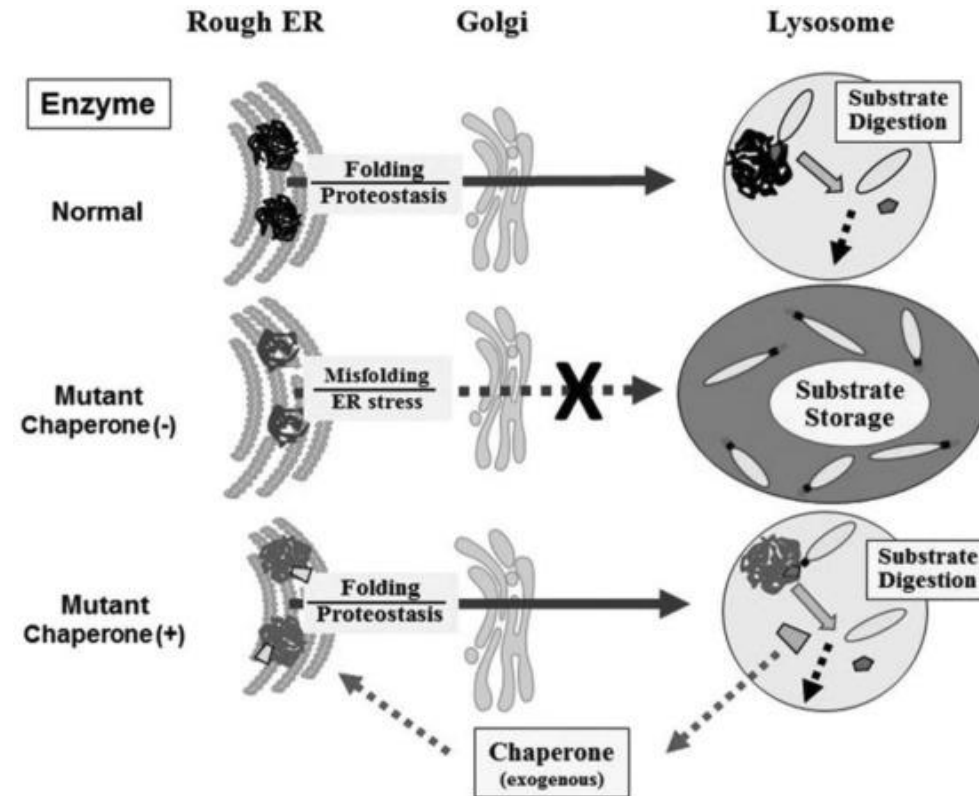
GCCase, glucocerebrosidase; MPS, mucopolysaccharidosis.

Stemcells transplantation

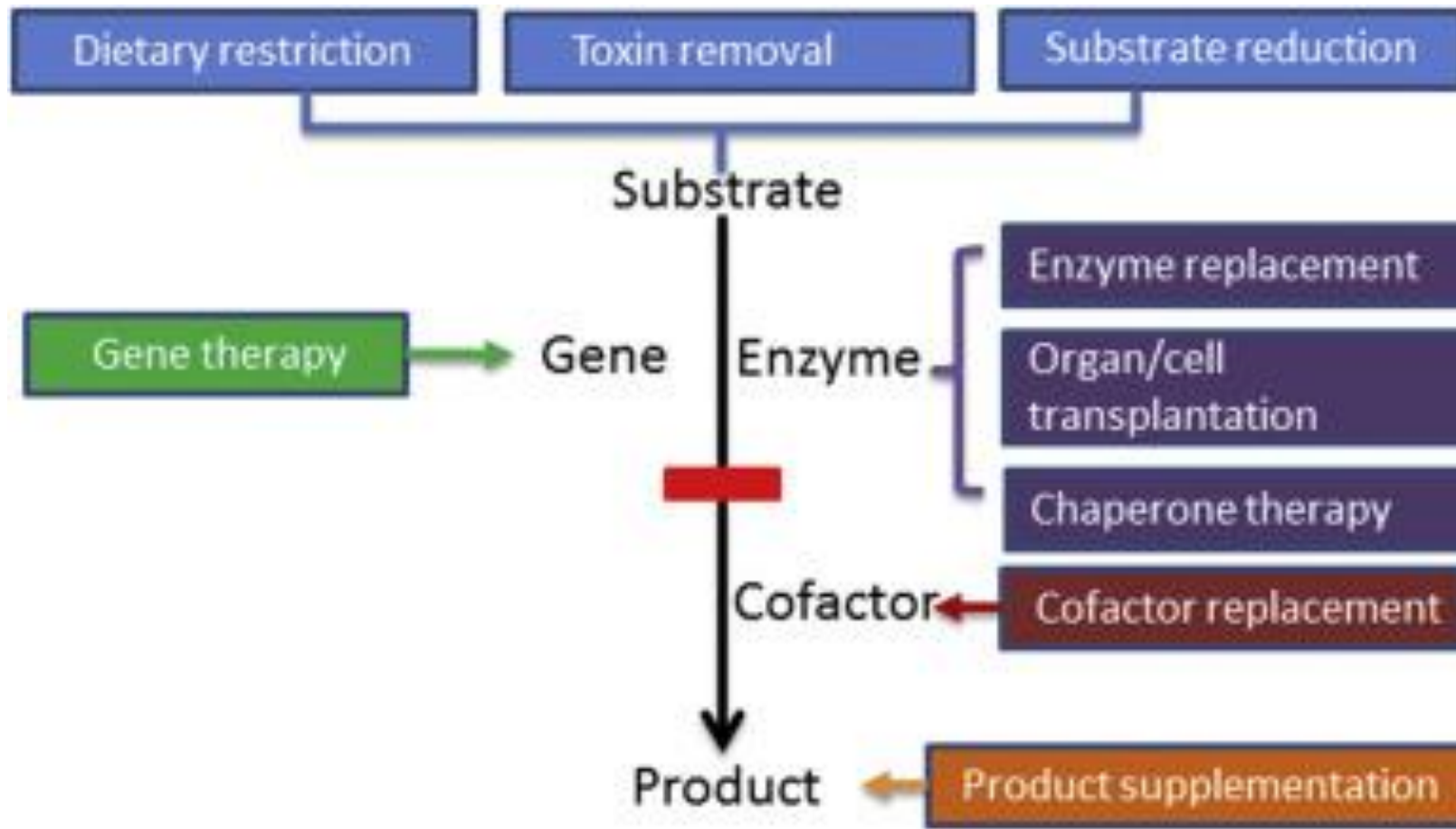
	Severe MPS I Rapid Progression	Attenuated MPS I Slower Progression	
Phenotype			
	Hurler	Hurler-Scheie	Scheie
Median age of onset²	6 months	1.5 years	5.3 years
Early and prevalent signs²	Hernia, coarse facial features, kyphosis/gibbus	Hernia, corneal clouding, hepatomegaly	Hernia, joint contractions, corneal clouding
Median age of diagnosis²	1 year	4 years	9.4 years
Impact on cognition	Significant mental delay with loss of acquired skills ²	Normal or slightly delayed, learning disabilities ^{4,5}	None ²



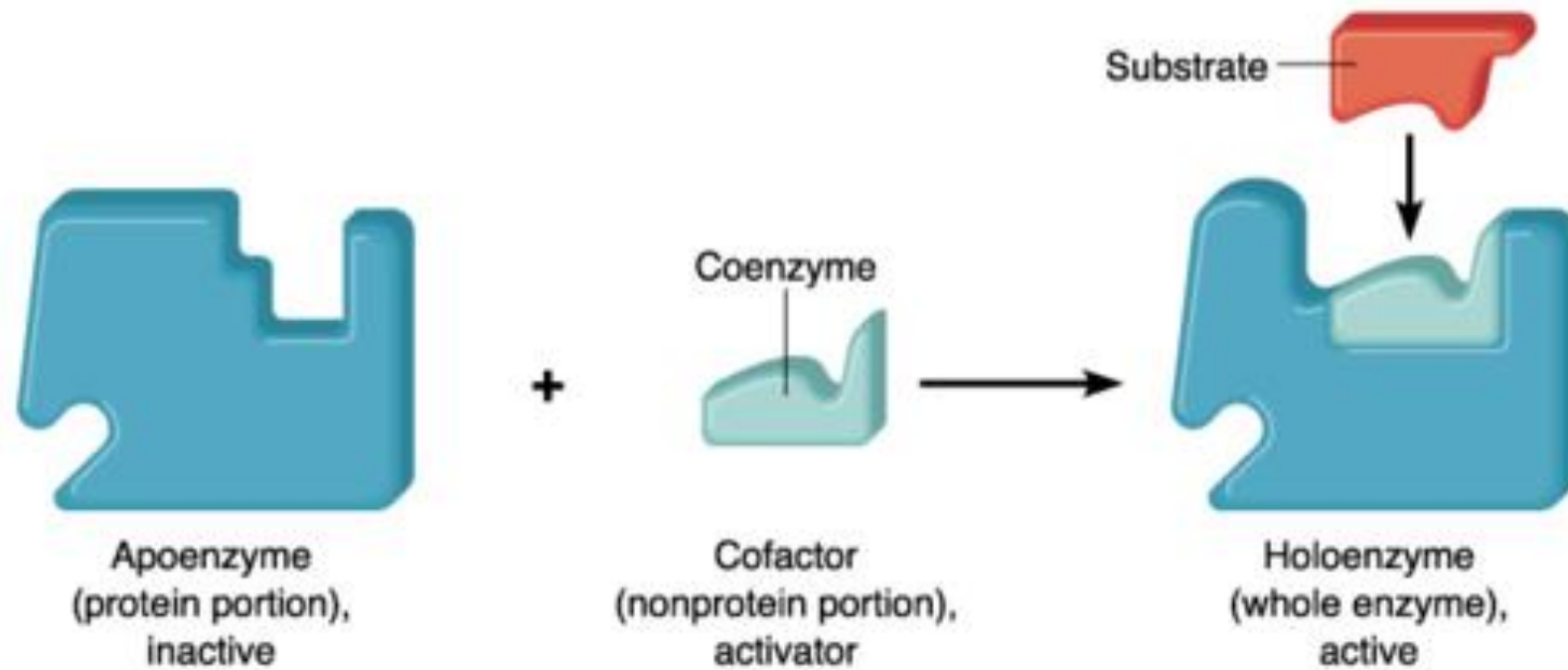
Chaperone terapi



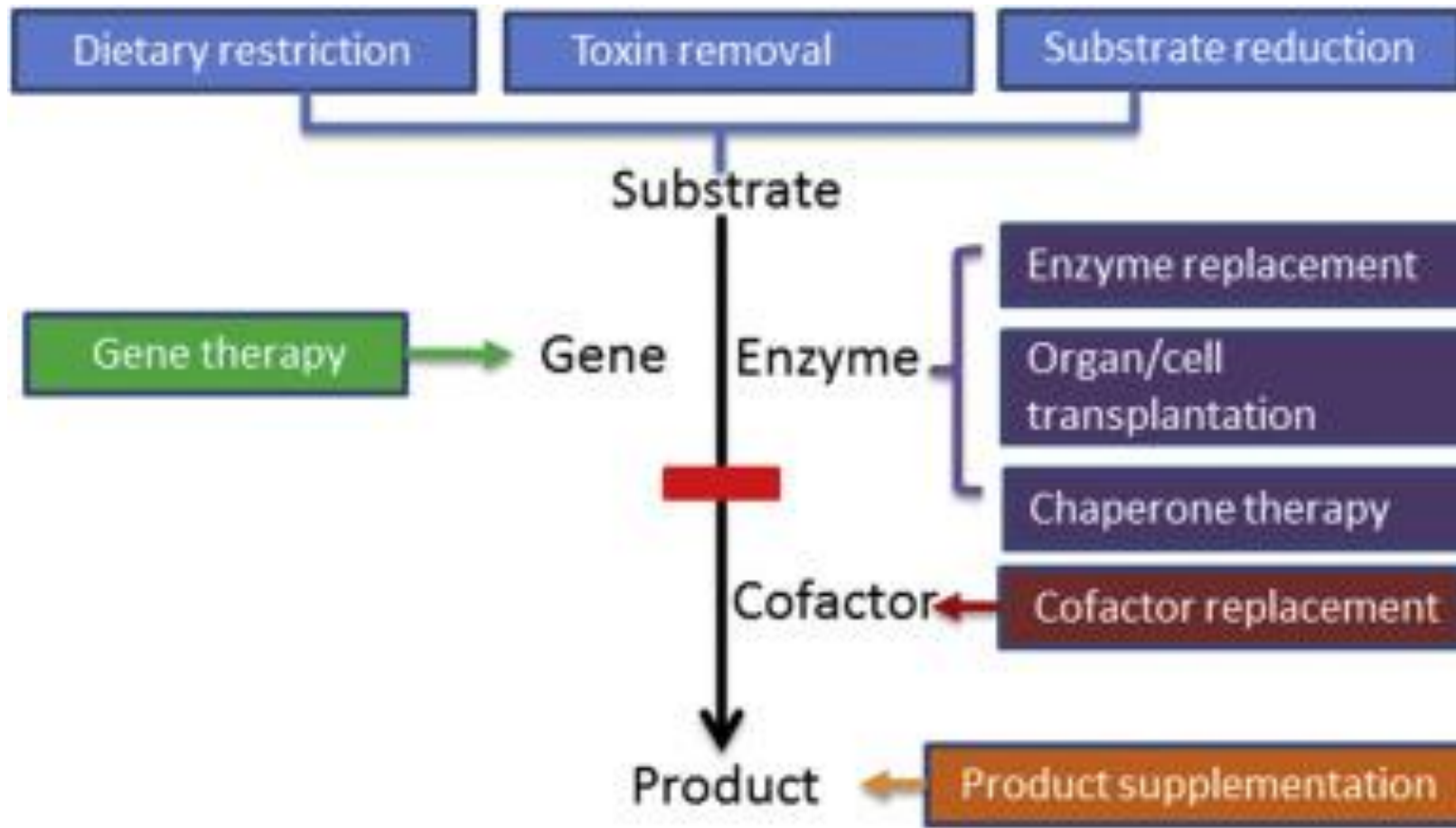
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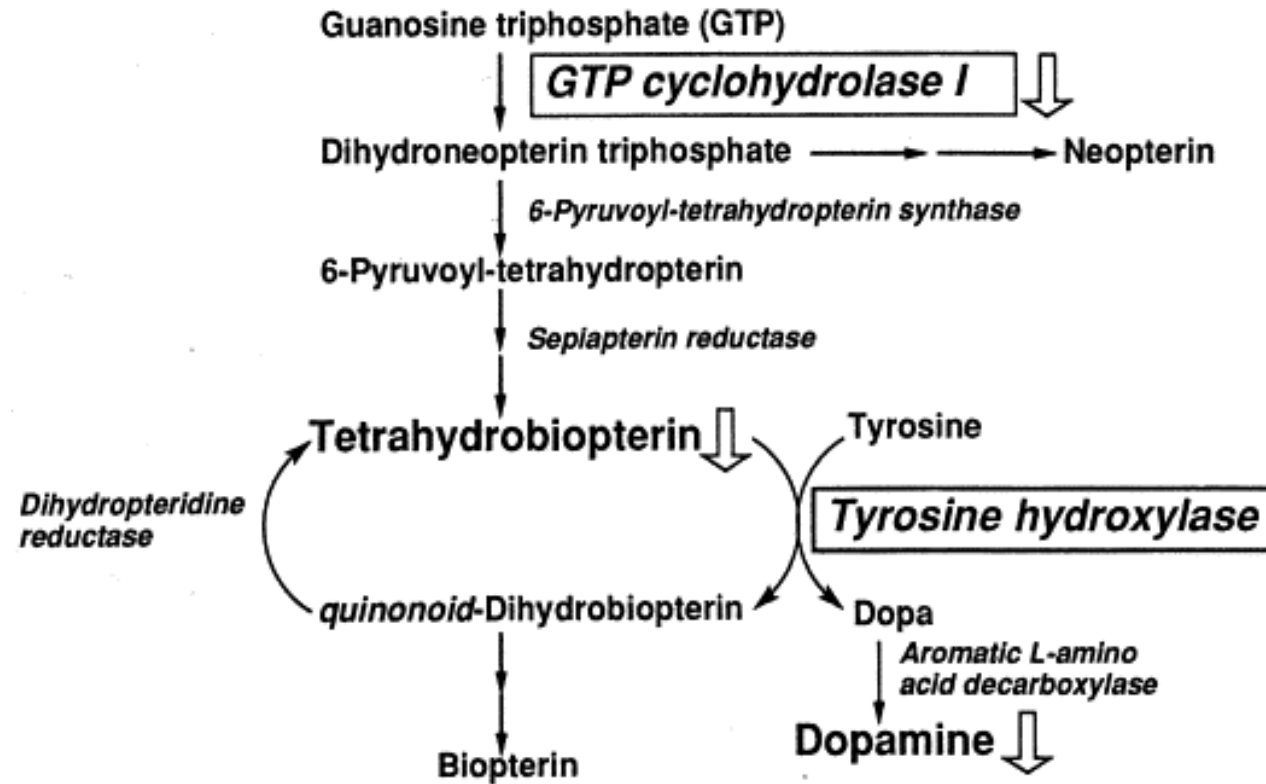
Cofactor replacement



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Product supplementation



Dopa-responsive dystonia | Tidsskrift for Den norske legeforening



Stödjande behandling

- Epilepsi, spasticitet, dystonier, sömn mm
- OBS mitokondriella sjukdomar

Potentially mitochondrion-toxic agents. Mitochondrial patients needing one of these treatments should be carefully monitored, clinically and by laboratory exams, including creatine kinase and lactate (for further details, see text).

Aminoglycosides
Antiretrovirals
Clevudine
Chloramphenicol
Dichloroacetate
Isoflurane
Linezolid
Metformin
Propofol
Statins
Topiramate
Valproic acid
Zonisamide





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