Glyphosate as Glycine Analogue: Explaining Zika & Microcephaly

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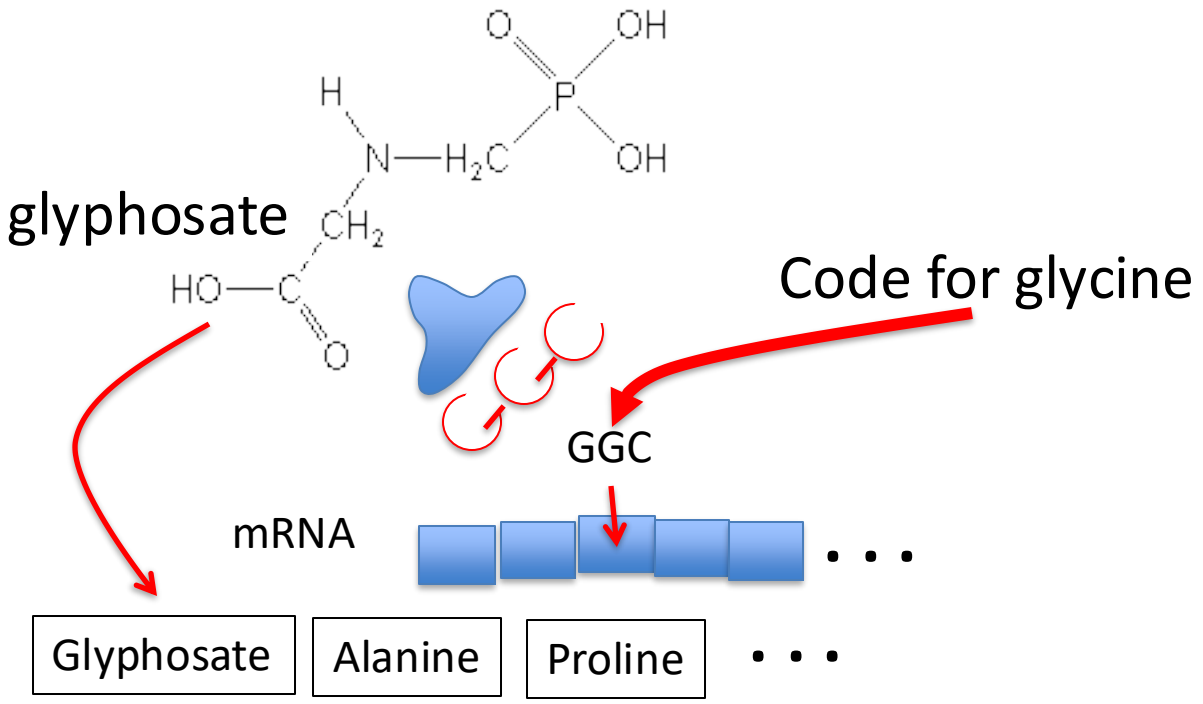
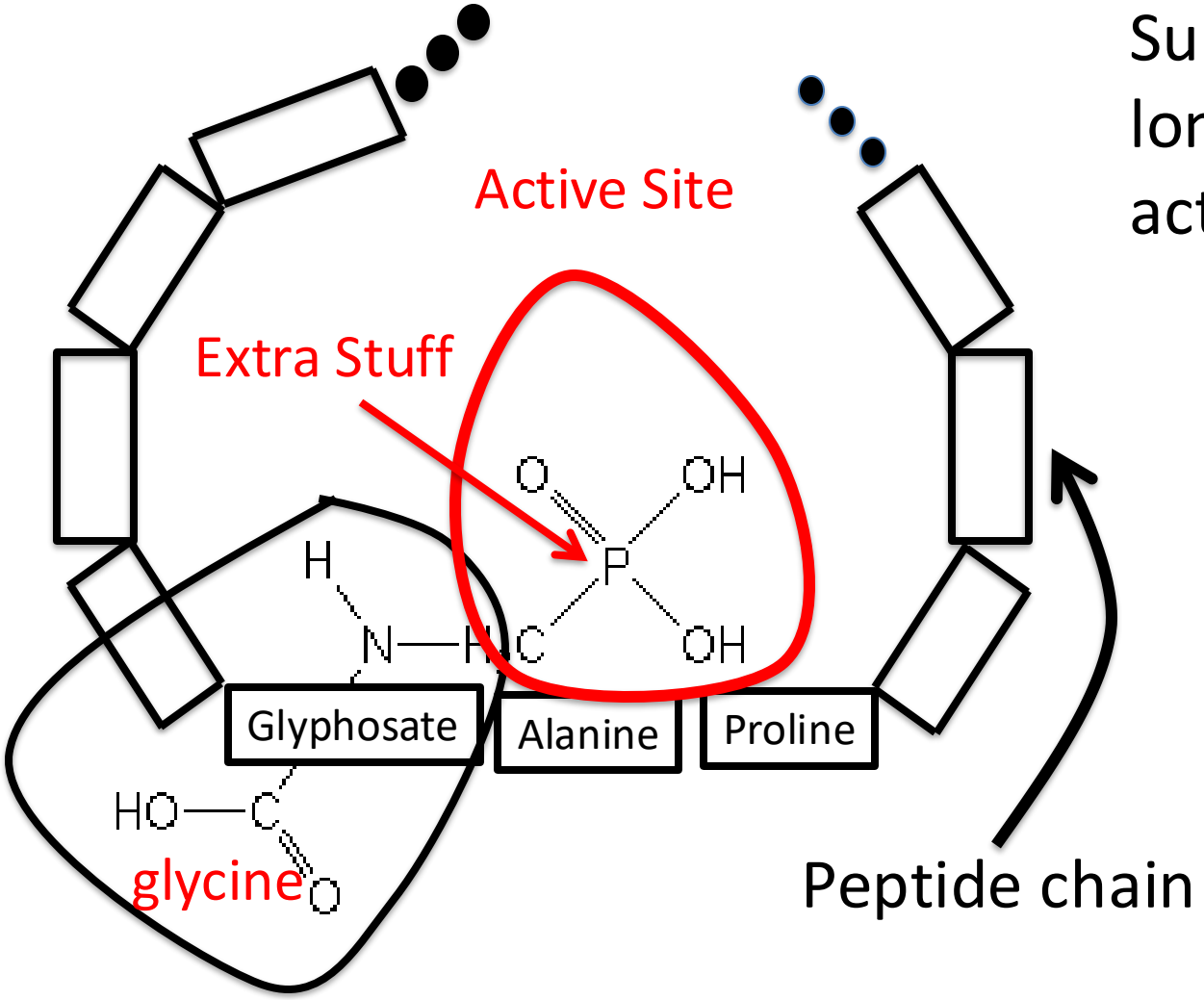
What If Glyphosate Could Insert Itself Into Protein Synthesis???



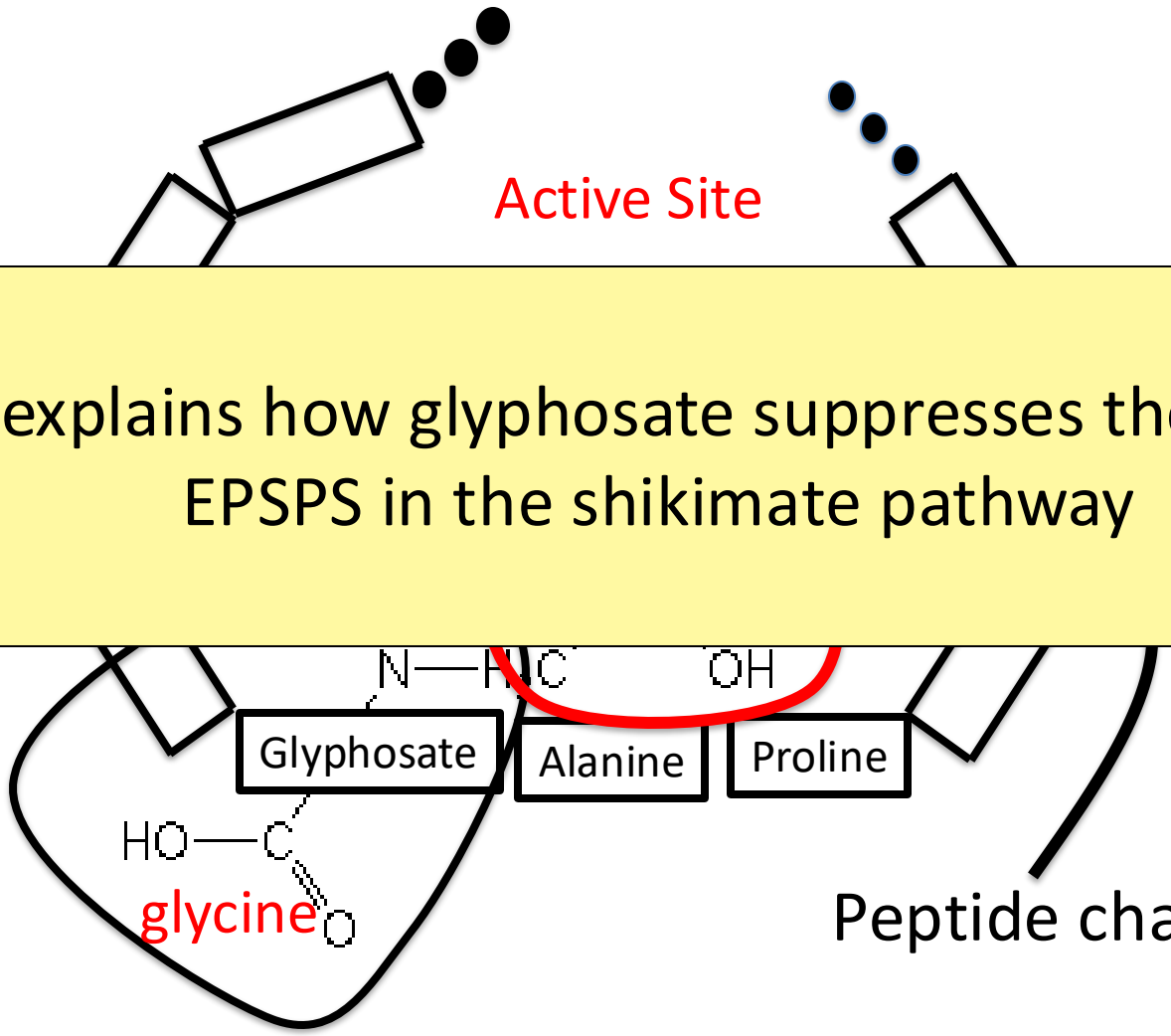
Any proteins with conserved glycine residues are likely to be affected in a major way

Extra Piece Sticks Out at Active Site



Substrate no longer fits in active site

Extra Piece Sticks Out at Active Site



This explains how glyphosate suppresses the enzyme EPSPS in the shikimate pathway

Vulnerable Proteins: Resulting Pathologies

Conserved Glycines	Disease Profile
Hormone-sensitive Lipase	Obesity
Insulin Receptor	Diabetes
Amyloid Beta Plaque	Alzheimer's Disease
OGG1	DNA Damage → Cancer
Lipocalin	Kidney Failure
ACTH	Adrenal Insufficiency
Cytochrome C Oxidase	Mitochondrial Disease
Alpha Synuclein	Parkinson's Disease
TDP-43	ALS

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Glyphosate insertion by mistake in place of glycine during protein synthesis can easily explain the alarming correlations between glyphosate usage on core crops and a long list of debilitating chronic diseases

Zika and Molecular Mimicry

Studies from the Vaccine Induced Immunological Damage (VIID) Program

Zika E Protein: GWGNGCGLFGKGSLV

Immunoglobulin heavy chain: GYSSGCGYWGQGTLV

- Lots of glycines! – These could get displaced by glyphosate during protein synthesis!!
- Likely to disrupt protein folding and cause resistance to breakdown

→ Autoimmune reaction to similar protein (immunoglobulin heavy chain) due to molecular mimicry

GMO Mosquito*

- Grown in contained spaces in Cayman Islands
  - Fed sucrose as larvae followed by blood as adults (sucrose comes from sugar beets or sugar cane)
- Males engineered to become infertile without access to tetracycline
- They could be harboring more glyphosate than mosquitoes in the wild

*AF Harris et al., Nature Biotechnology 2011; 29:1034-1037.

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A Zika virus growing in a GMO mosquito is likely to end up with glyphosate in its proteins

- They could be harboring more glyphosate than mosquitoes in the wild

*AF Harris et al., Nature Biotechnology 2011; 29:1034-1037.

Very low levels of immunoglobulins are linked to a condition that includes immune deficiency, neurological abnormalities, failure to thrive and microcephaly*

*ME Conley et al., Blood 1986;67(5):1251-1256.