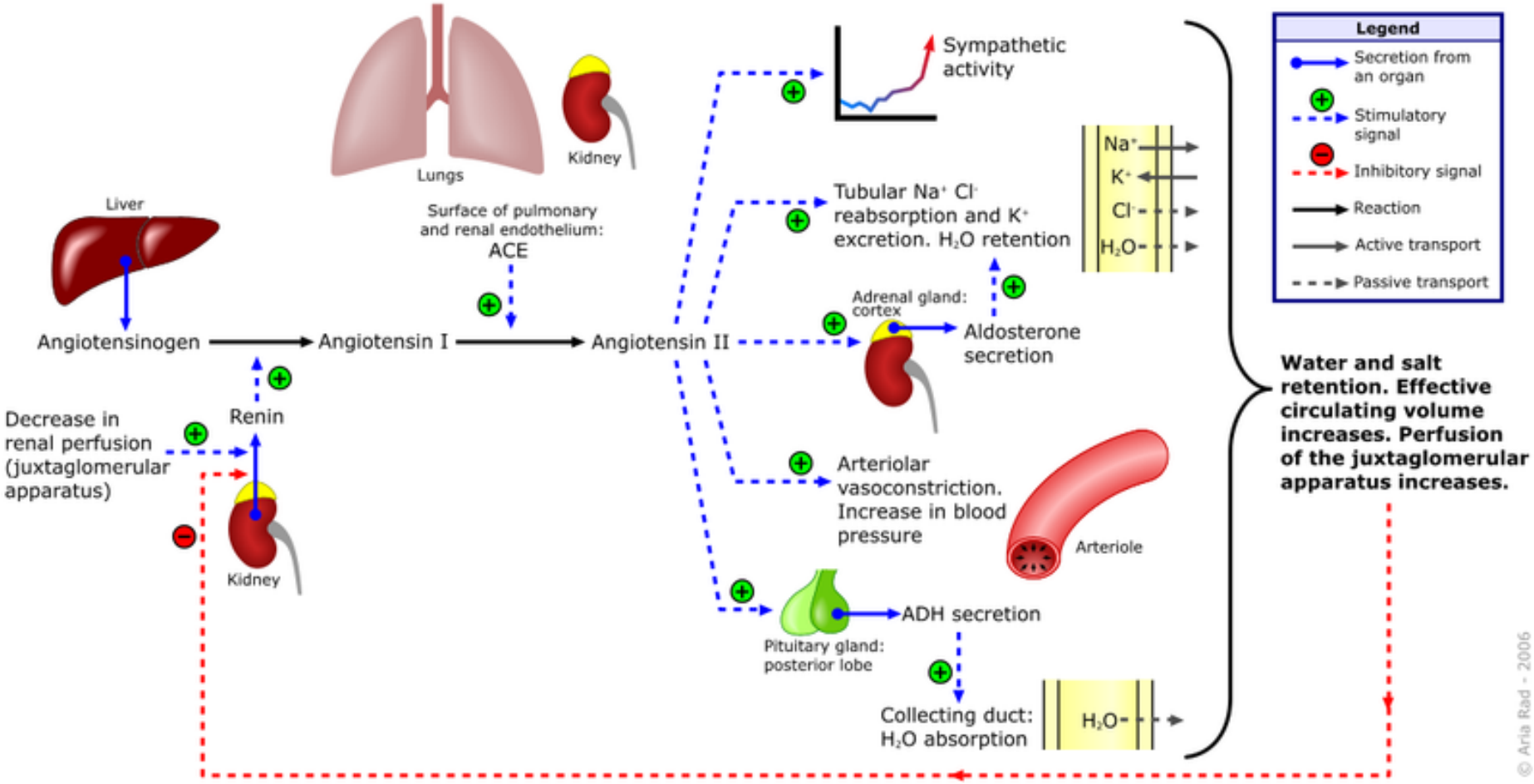
Renin-angiotensin-aldosterone system



Asp-Arg-Val-Tyr-Ile-His-Pro-Phe-His-Leu-Val-Ile-His-…

(angiotensinogen)

renin
-cleaves Leu-Val amide bond
-incredibly substrate specific; requires an octapeptide minimum!

*rate limiting step

Asp-Arg-Val-Tyr-Ile-His-Pro-Phe-His-Leu + Val-Ile-His-…

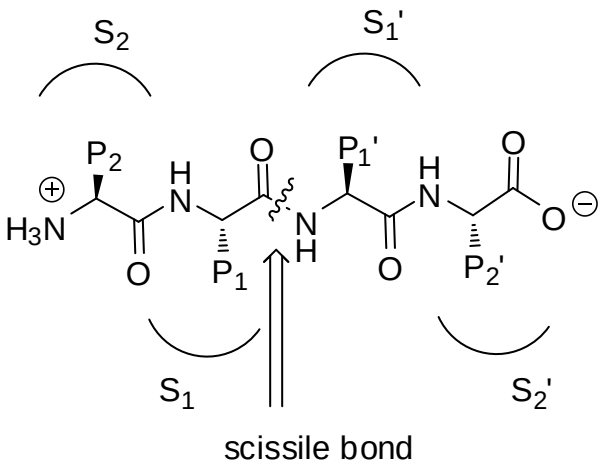
(angiotensin I, a decapeptide)

angiotensin converting enzyme (ACE)
-cleaves Phe-His bond

causes vasoconstriction, Na/H_2O retention

Asp-Arg-Val-Tyr-Ile-His-Pro-Phe + His-Leu

(angiotensin II, an octapeptide)

angiotensinases

inactive peptide fragments