

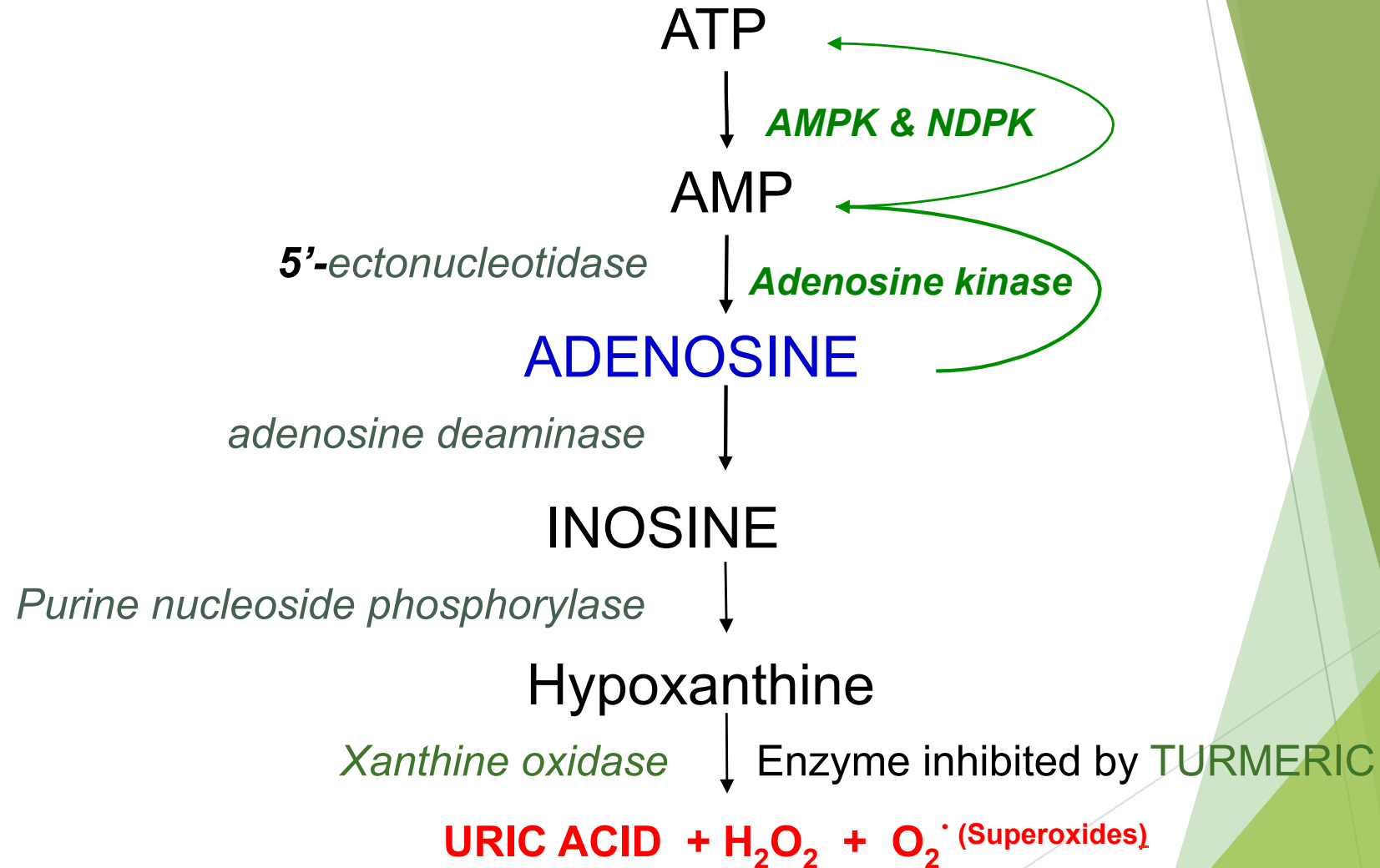
Treatment of Coronavirus by TURMERIC and DIPYRIDAMOLE

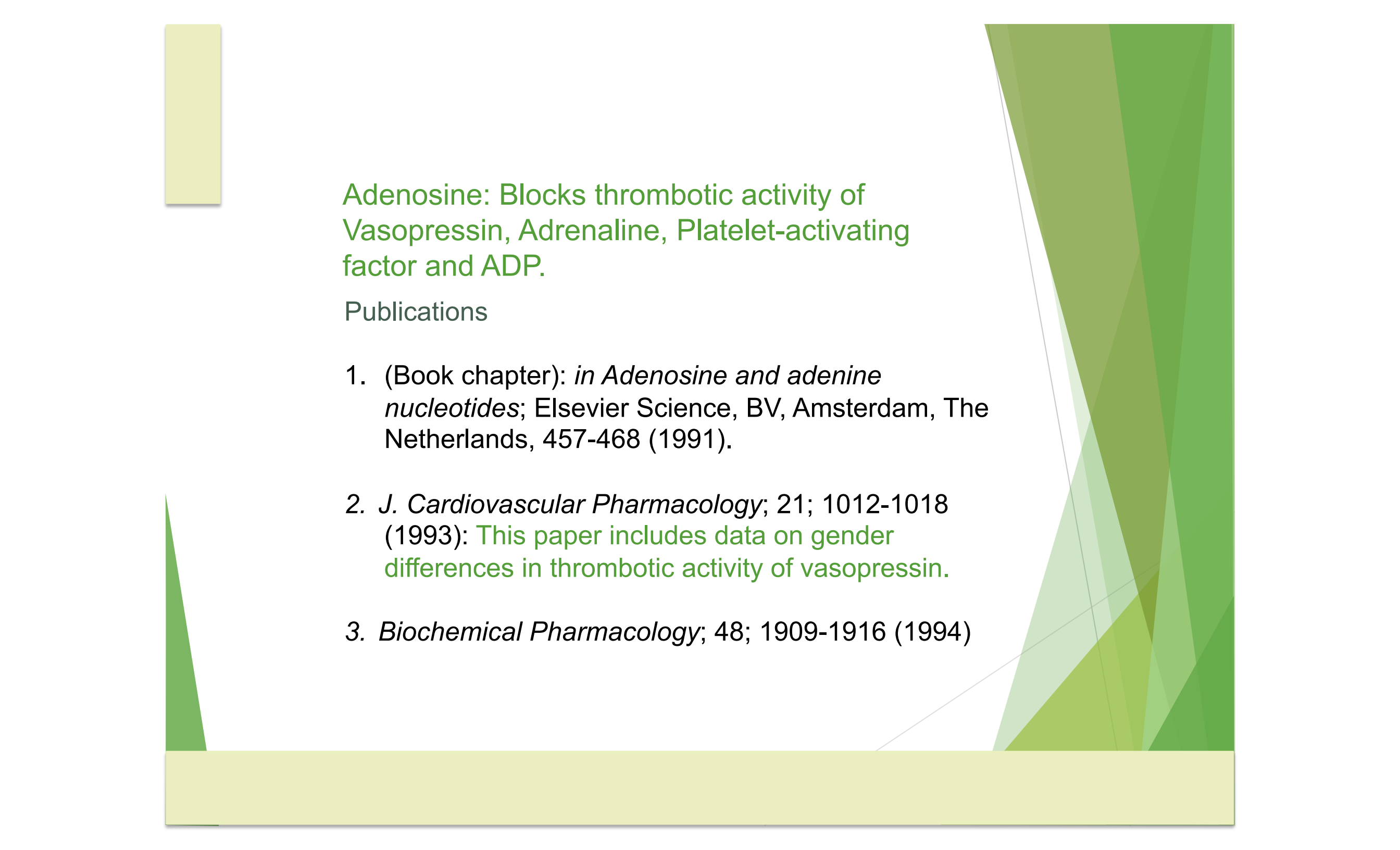
Research findings on the herb TURMERIC
and the antithrombotic drug DIPYRIDAMOLE
for their therapeutic use in Coronavirus

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Enzymatic Pathway Involved in Cell Function

(Cell aging, Ischemia (heart attack, Stroke), gout, Hypoxia (COVID-19 etc.)



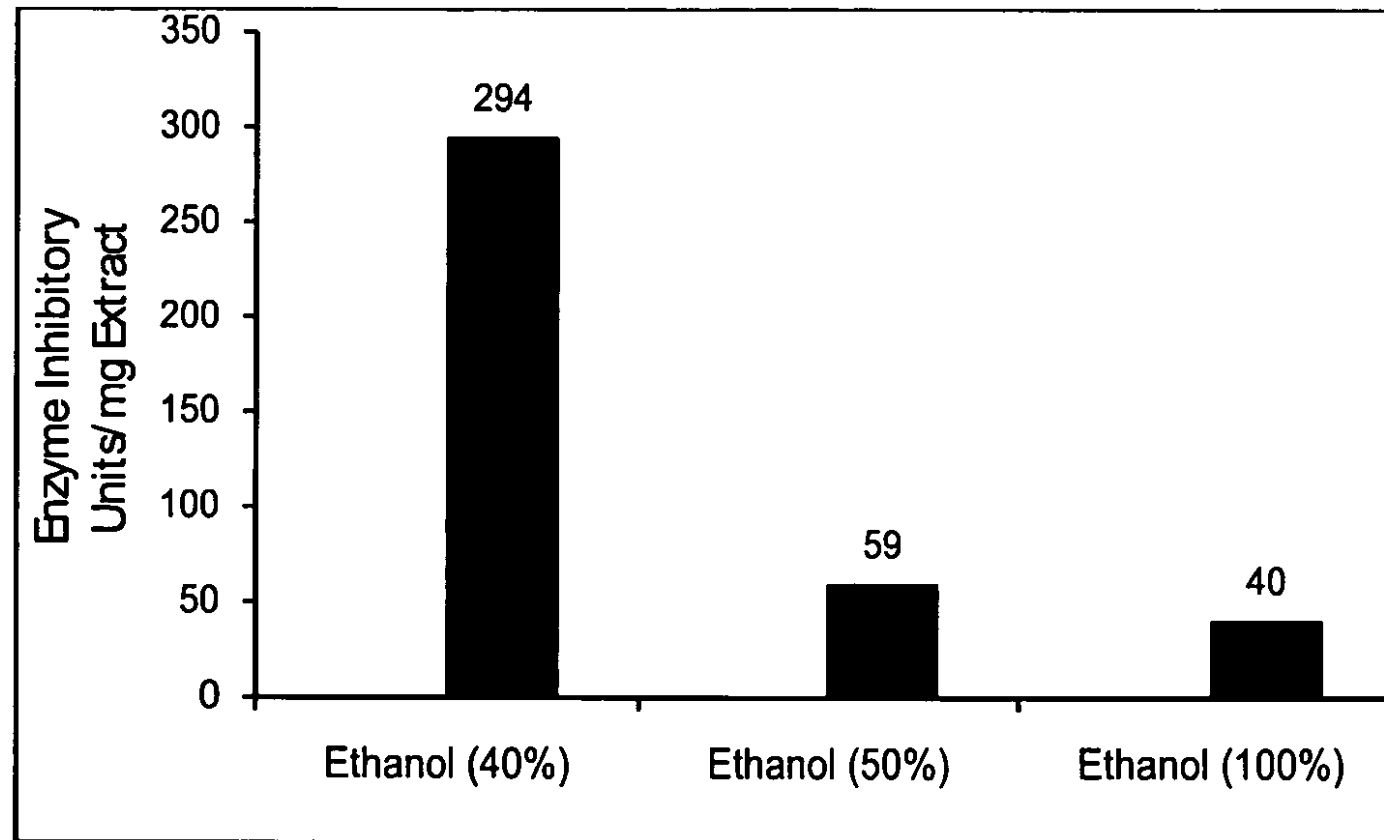


Adenosine: Blocks thrombotic activity of Vasopressin, Adrenaline, Platelet-activating factor and ADP.

Publications

1. (Book chapter): *in Adenosine and adenine nucleotides*; Elsevier Science, BV, Amsterdam, The Netherlands, 457-468 (1991).
2. *J. Cardiovascular Pharmacology*; 21; 1012-1018 (1993): This paper includes data on gender differences in thrombotic activity of vasopressin.
3. *Biochemical Pharmacology*; 48; 1909-1916 (1994)

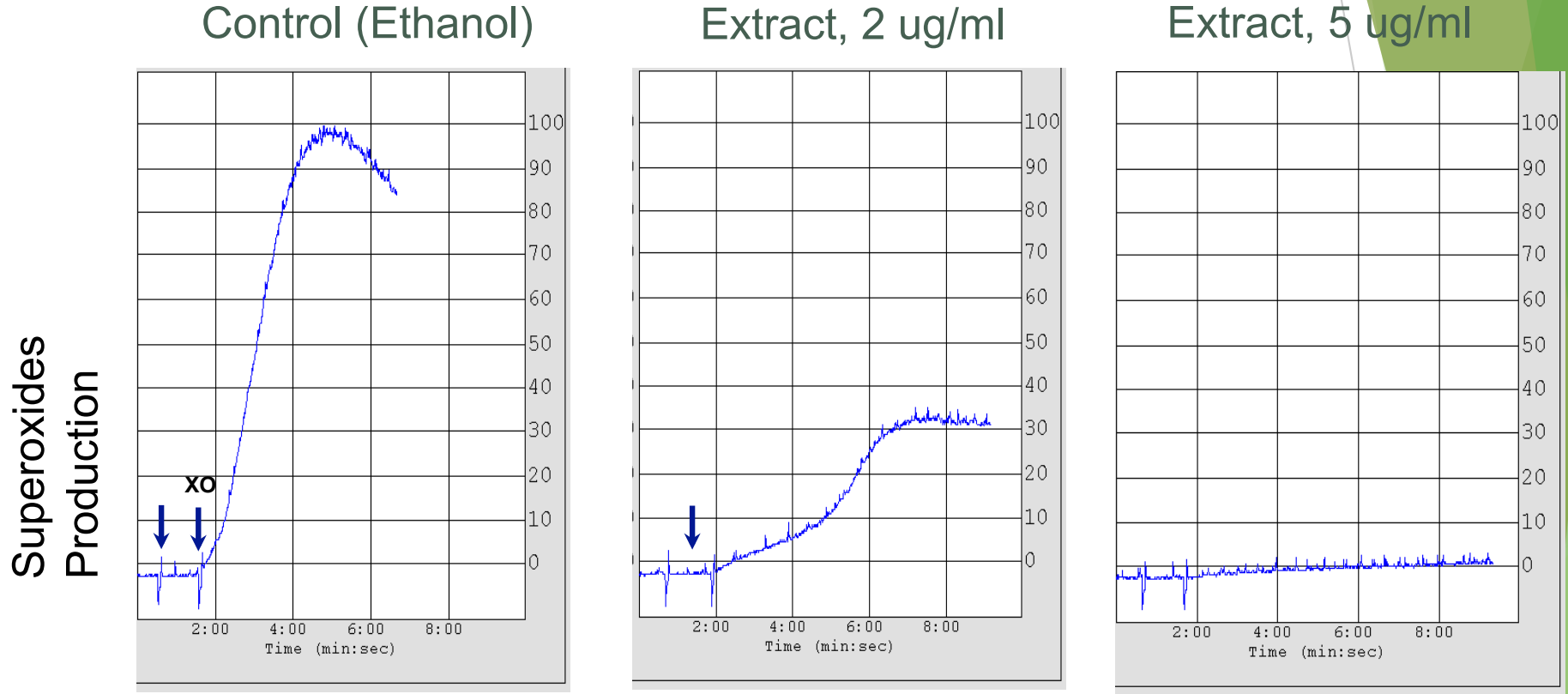
Enzyme Inhibitory Units/mg of Extract
(Extraction with 40%, 50%, or 100% Ethanol)



Enzyme Inhibitory Units (EIU): EIU/mg of Extracts (solid-form)

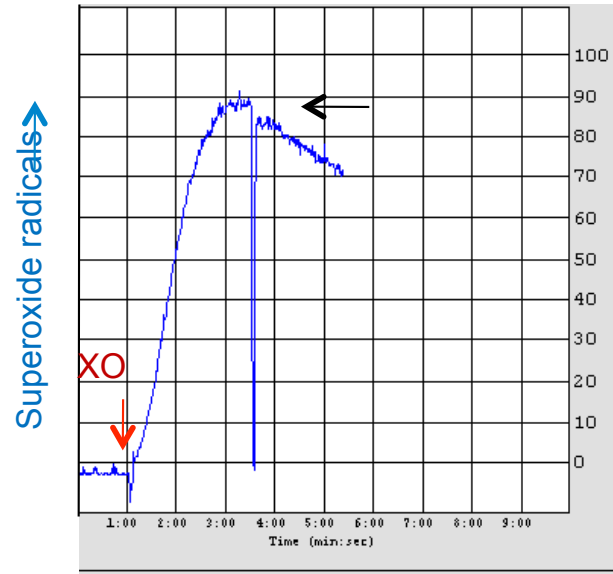
Data from Turmeric US Patent (# 8808768 B2)

Effect of Ethanol (as Control) and Turmeric extract on production of superoxide radicals

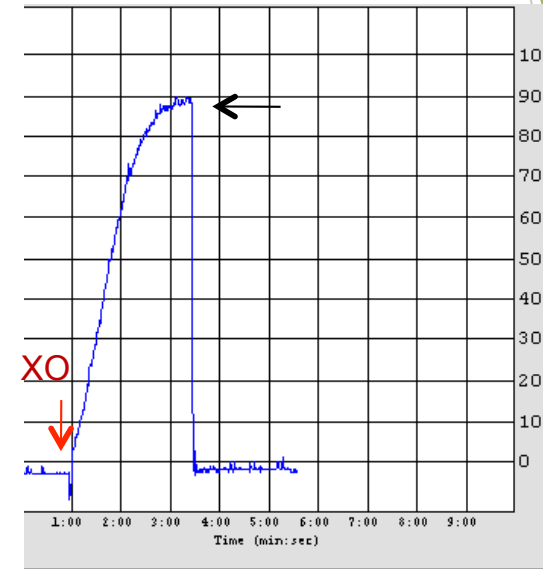


Effects on Superoxide radicals-scavenging Activity

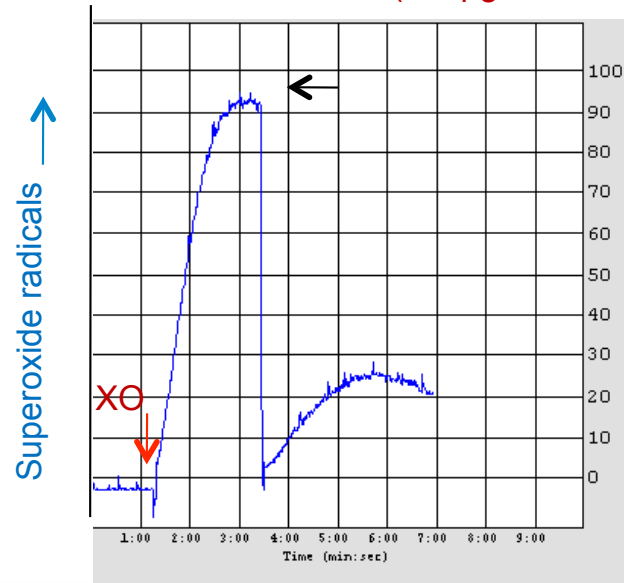
2a: Ethanol (50%), 5 μ l/ml



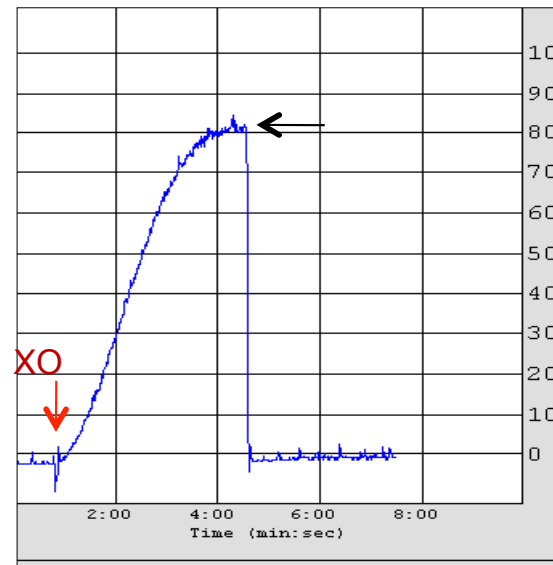
2c: Turmeric Extract (1 μ g/ml)

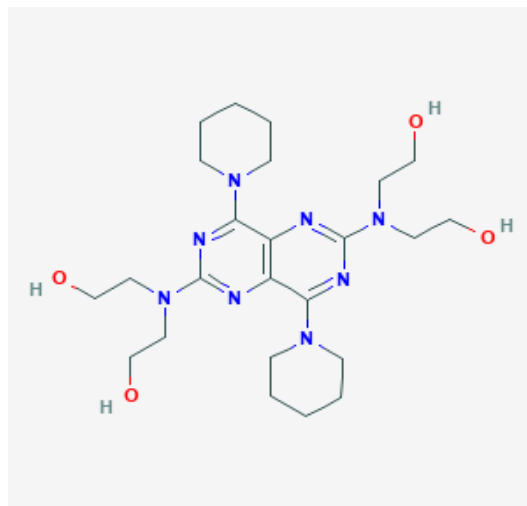


2b: Turmeric Extract (0.2 μ g/ml)



2d: SOD (2 units/ml)





Dipyridamole (Persantine)
($C_{24}H_{40}N_8O_4$)

Cyclic-AMP phosphodiesterase inhibitor, developed to treat hypertension.

Publications: Our studies on dipyridamole as antithrombotic drug:

Biochemical Pharmacology: 34, 3965-3972, 1986

Thrombosis Research: 43, 161-175, 1986

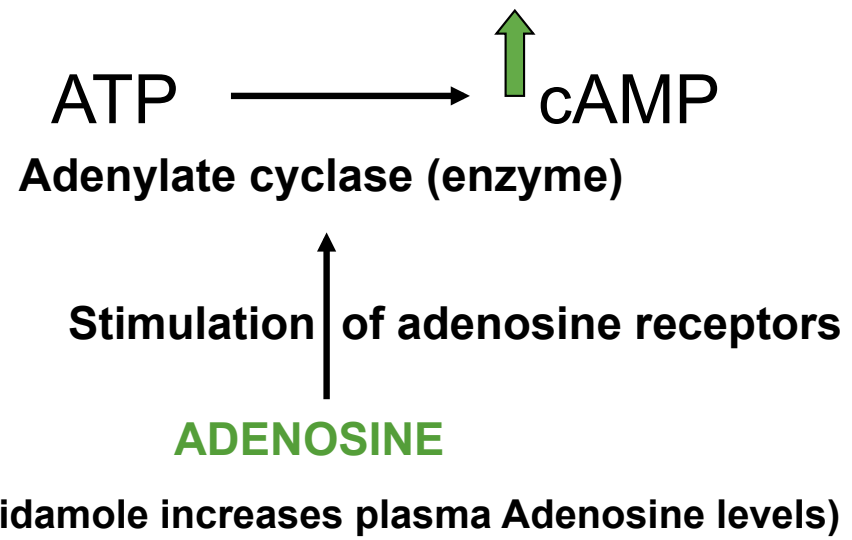
Biochemical Pharmacology: 37, 621-626, 1988

Presently it is used as antithrombotic drug.

Conclusion: Dipyridamole could be effective to prevent thrombosis and clot formation in COVID-19

Dipyridamole

Prevents Thrombosis and Clot formation



Summary: Potential Treatment of COVID-19

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1. Suitable extracts of Turmeric will prevent the production of harmful superoxides thus, minimizing possible tissue damage to the lungs, etc. in COVID-19.
2. Dipyridamole is useful to prevent thrombosis and clot formation.
3. **SUGGESTION:** Perhaps the combination of turmeric and Dipyridamole produces greater beneficial effects.



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