Anti-migratory and anti-proliferative effects of Sumac plant extract on uterus cervix cancer

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INTRODUCTION

Hallmarks of Cancer

(Hanahan and Weinberg 2011)
INTRODUCTION

Hallmarks of Cancer

Emerging Hallmarks
- Self-sufficiency in growth signals
- Insensitivity to anti-growth signals

Enabling Characteristics
- Evading apoptosis
- Induced angiogenesis

Deregulating cellular energetics
- Genome instability and mutation

Avoiding immune destruction
- Tumor-promoting inflammation

fighting cancer growth and proliferation
fighting cancer migration and invasion

(Hanahan and Weinberg 2011)
RELEVANCE OF THE PROJECT

**Rhus coriaria (Sumac)**

- Belongs to Anacardiaceae Family
- treatment for several different ailments in Middle Eastern and South Asia
- gifted with antioxidant, anti-inflammatory, hypoglycemic and hypolipidemic activities
- Contains several functional compounds such as flavonoids phenolic acids and tannins
RELEVANCE OF THE PROJECT

Rhus coriaria (Sumac)

Inhibition of cell growth and proliferation of uterus cervix cancer?

Rhus coriaria extract

Inhibition of cell migration capacity of uterus cervix cancer?
**RESULTS**

*Rhus coriaria* has a growth inhibitory effect on uterus cervix cancer cells after 48h treatment.
Rhus coriaria inhibits the migration of uterus cervix cancer cells

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Rhus coriaria inhibits the migration of uterus cervix cancer cells
Rhus coriaria inhibits the migration of uterus cervix cancer cells
Further work should be done to:

• **Screening of the phytochemical compounds in Sumac for biological activity**

• *In-vivo* application to validate the anti-migratory effect in an animal model
Thank you for your attention

Acknowledgments to:

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