

*6th International Conference on Clinical & Experimental
Dermatology*

May 04-06, 2016 Chicago, Illinois, USA



NAIRIAN

Derma benefits of essential oil distilled from a high altitude damask rose

Arpi Avetisyan^{1*} and A. Markosian¹, S. Aloyan¹, M. Petrosyan², N.
Sahakyan², A. Trchounian²

¹**Nairian CJSC**, Yerevan, Armenia

²Microbiology, Plants and Microbes Biotechnology, Department of Biology, Yerevan State
University, Yerevan, Armenia

What is NAIRIAN ?



NAIRIAN

- ❖ Nairian is a company manufacturing all-natural cosmetics and beauty products from plants and herbs harvested in Armenia.
- ❖ Nairian Cosmetics was founded based on the belief that no one have to sacrifice health for beauty.

The Essential Oils Distilled in Nairian



NAIRIAN

- *Angelica*
- *Basil*
- *Clary Sage*
- *Melissa*
- *Mint*
- ***Rose***
- *St. John's Wort*
- *Tagetes*
- *Tarragon*
- *Thyme*
- *Yarrow*
- *Ziziphora*

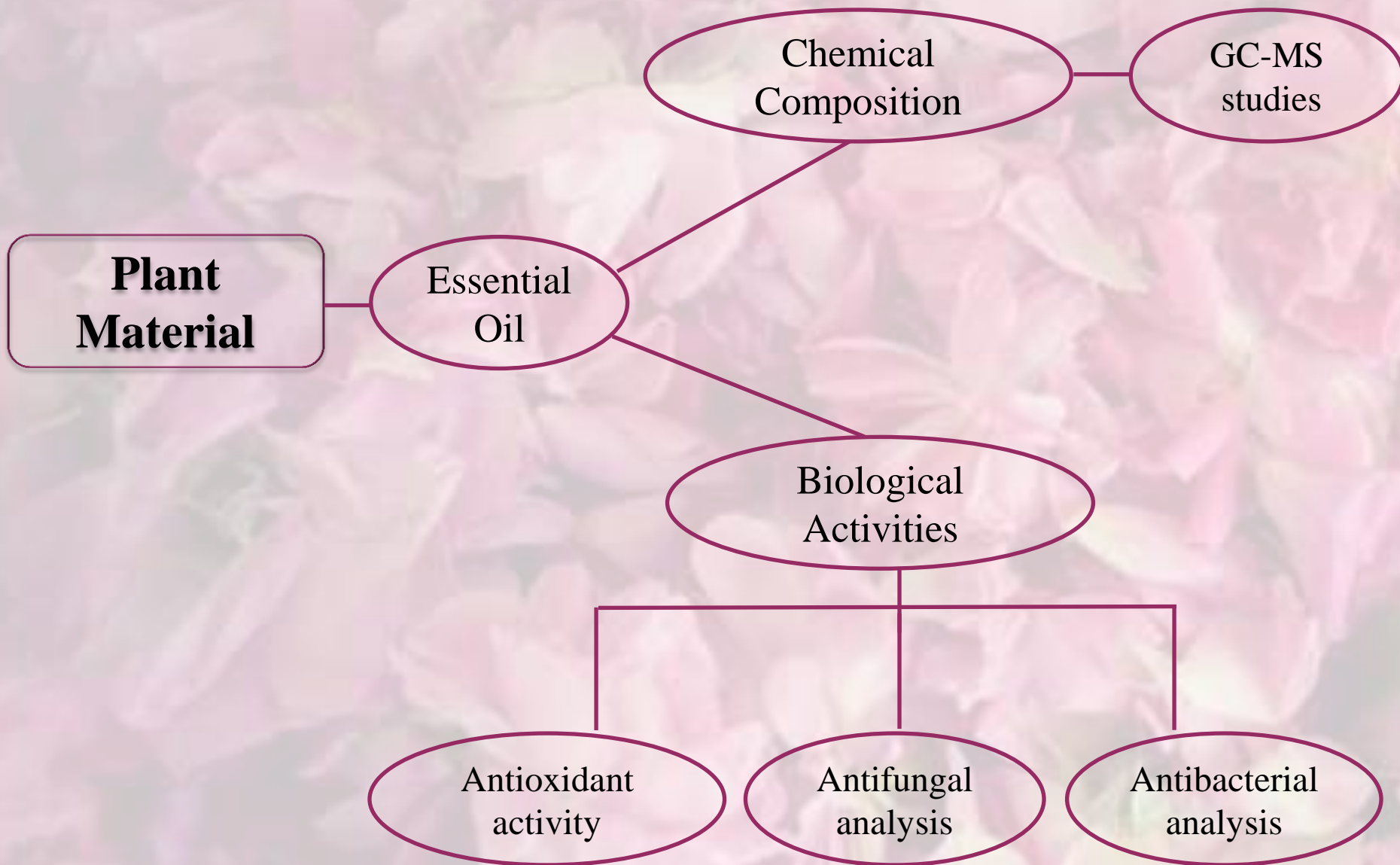


The aim of this research is:

- ❖ to determine the chemical composition of the Rosa Damascena essential oil
- ❖ to test biological activities of rose essential oil, water and ethanol extracts of rose petals
- ❖ to measure phenolic and antocyanins content of rose petal water extract



Research Step by Step



Isolation of the essential oil



Clevenger-type apparatus

- Plant material was hydrodistilled for 3h in a Clevenger – type apparatus.
- The oil has been dried with anhydrous sodium sulfate and stored at 4°C until analysis.

Essential oil distilled from Damask Rose flowers

Plant Material	Amount, <i>kg</i>	Essential oil, <i>g</i>	Yield, %
Rosa × damascena Mill L.	250	60	0,024

GC-MS analysis



NAIRIAN



- T_{oven} - from 40 to 250°C
- Scanning rate - 3°C/min.
- Carrier gas - He (purity 5.6)
- Gas flow rate - 1 mL/min.

**Hewlett-Packard 5890 gas chromatograph
Mass Selective Detector 5972**

More than 98%
components were
identified

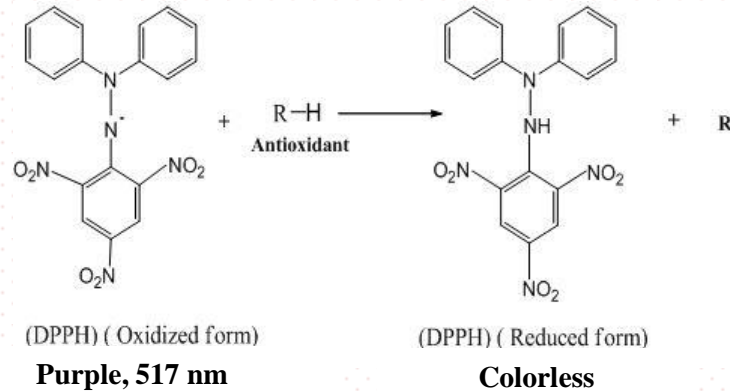
**The main components of Rose
essential oil**



Antioxidant Activities



Genesis 10S



UV-Vis
Scient

Phenolic content in water extract	2.674 ± 0.7 mg/L
Anthocyanins content in water extract	2.224 ± 0.5 mg/L

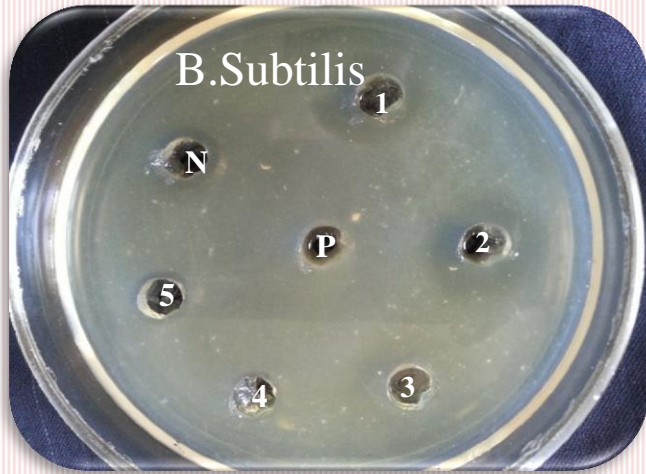
The IC₅₀ values of investigated samples

Positive control

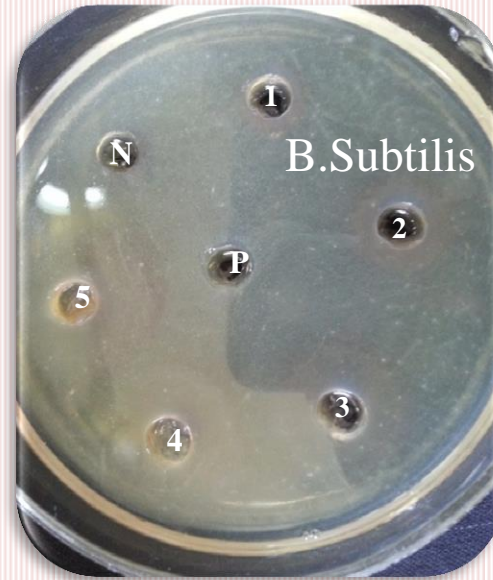
- Grapefruit Seed Extract

Sample	IC ₅₀ , mg/mL
<i>Grapefruit Seed Extract</i>	0.0025
<i>Rose essential oil</i>	19.7
<i>Rose water extract</i>	0.144

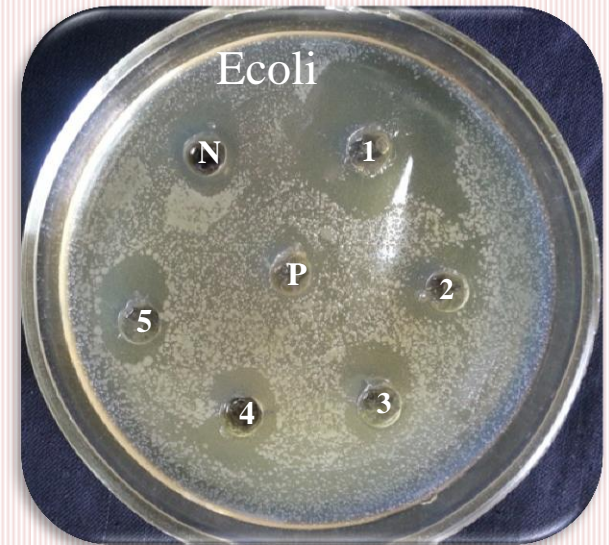
Antibacterial Analysis



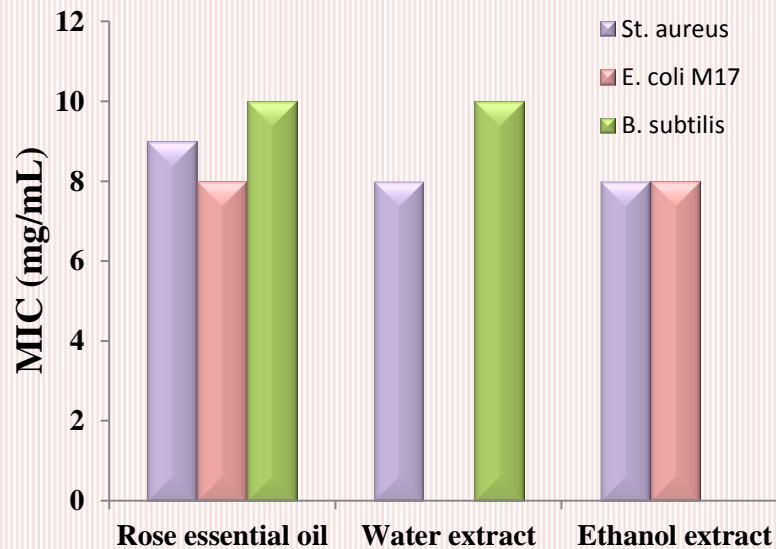
Rose Essential Oil



Water extract



Rose Essential Oil



Minimal inhibition concentrations (MIC)

Conclusion and Future Work



NAIRIAN

- ❖ The Damask Rose essential oil distilled in Armenia demonstrated high value of antioxidant properties and the water extract of rose petals as well, therefore they are used in Nairian cosmetic products in anti-aging line.
- ❖ Due to the high antibacterial properties of rose essential oil and extracts Nairian uses it in products for acne prone skin.
- The optimization of Damask rose flowers cultivation, harvesting and distillation technologies will be continuously improved to enhance the above mentioned properties of essential oil and extracts.



NAIRIAN

*We keep your beauty in mind,
and your health at heart.*

Thank You !!!

www.nairian.com

