



SUCCESSFUL R&I IN EUROPE 2025
12th EUROPEAN NETWORKING EVENT

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12th European Networking
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Düsseldorf (GERMANY)



Yerevan State University

**INVESTIGATION OF THE POSSIBILITY OF INCREASING
THE DEGREE OF BINDING OF AN ANTITUMOR DRUG
TO TUMOR DNA USING INNOVATIVE TECHNOLOGY OF
NON-IONIZING AND NON-THERMAL MILLIMETER
ELECTROMAGNETIC RADIATION**

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- **Our Research:** Pilot studies of a less aggressive cancer treatment method
- **Strategic pathway:** Significant reduction in doses of chemotherapeutic drugs and improvement in the safety of cancer patients within the framework of the Horizon Europe partnership
- **Collaboration and Support:** Join Our Mission
- **We are looking for:**
 - **A. Consortia to join as a partner (any stage)**
 - **B. The consortium leader and members:**
 - **Universities, R&D Institutes, SMEs, Big companies**
 - **C. Research Teams:**
 - **Calling academic and corporate research teams for joint funding applications, especially for Horizon**
 - **D. Investors:**
 - **Inviting investors to support preclinical & clinical trials, which are crucial for the development and implementation into medical practice of a new, safe and promising method for treating cancer patients.**

Our Research

Unlike anticancer drug therapy and radiation therapy **no harmful side effects** in cancer patients due to the negligible low energy radio quantum millimeter range compared to the energy of x-ray photons (**billions of times smaller**).

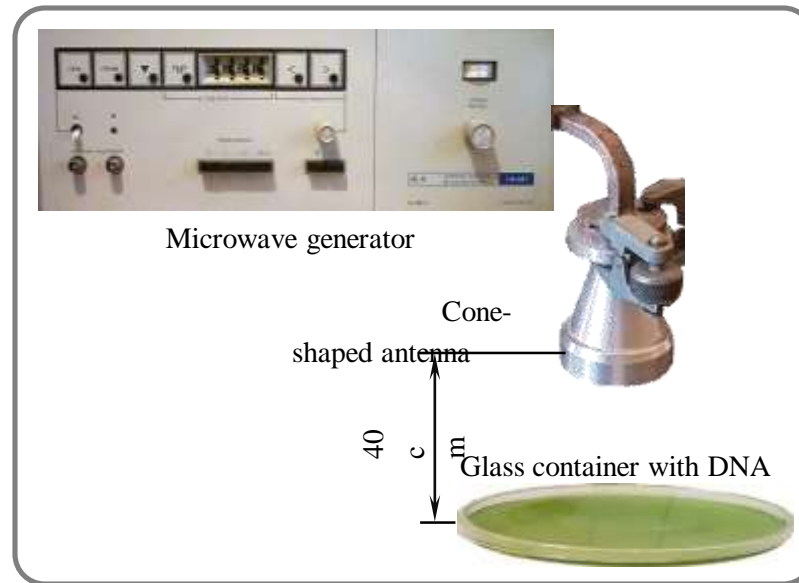
The **cheapness** and **easy to work** with generators of microwave and millimeter electromagnetic radiation, that do not require **large screened rooms**, does not require **complicated settings or alignments** and their **small sizes** that allows their use even in small clinics or hospitals.

The method of application non-ionizing and athermal Microwaves and millimeter waves is **non-invasive** and can be combined with other methods of **treatment-physiotherapy, medicine**.

Type of complex	T,K	$K \cdot 10^{-5}, M^{-1}$
Healthy DNA-doxorubicin		
Non-irradiated	290	6.0±0.1
	300	5.2±0.1
	310	4.5±0.1
Irradiated at 50.3GHz	290	64.5±0.2
	300	50.3±0.2
	310	39.4±0.2
Irradiated at 64.5GHz	290	62.0±0.2
	300	48.1±0.2
	310	38.2±0.2
Irradiated at 48.3GHz	290	6.9±0.1
	300	5.9±0.1
	310	5.1±0.1

Type of complex	T, K	$K \cdot 10^{-5}, M^{-1}$
Tumor DNA-doxorubicin		
Non-irradiated	290	8.7±0.1
	300	7.4±0.1
	310	6.3±0.1
Irradiated at 50.3GHz	290	74.9±0.2
	300	58.3±0.2
	310	46.1±0.2
Irradiated at 64.5 GHz	290	75.0±0.2
	300	57.4±0.2
	310	44.9±0.2
Irradiated at 48.3GHz	290	12.1±0.2
	300	10.1±0.1
	310	8.5±0.1

Strategic Pathways: Millimeter electromagnetic radiation at selective frequencies can significantly increase the binding constant of an anticancer drug to the affected tissue.



The generator of coherent extremely high frequency (EHF) oscillations with cone-shaped antenna. Measurements were done at far-field zone

SUMMARY

- The same antitumor effect can be achieved at considerable dose reduction. This is essential from the point of view of the suppression toxic side effects, application of gentle therapies for patients and the reduction of expenses associated with acquisition of expensive medicines.
- The proposed method of combined use of low-intensity MM waves and anticancer drugs can become the basis for the development of promising biomedical technologies for the diagnosis, prevention and treatment of oncological diseases.

Do you think we can work together?

Let's discuss some more (!)

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THANK YOU