

CALL OF ROSARIO

The consequences of the massive use of antibiotics in agricultural production are invisible until less or even untreatable infections appear in animals and humans. The creation and spread of resistance genes negatively impact ecosystems, causing loss of diversity and imbalance in the microbial world of humans, animals, plants and ecosystems.



Bacteria and their role in the nitrogen cycle.
Photography: Alexandr Trubetsky

Collaboration between researchers and communities is required to address the following priorities:

- to the role of microbial communities in maintaining life processes visible;
- to understand the mechanisms of how antibiotics pressure bacteria to create and share resistance genes;
- to document the concentrations of these genes in the environment, how they act, and what their consequences are;
- to study the interaction between antibiotics, resistant bacteria and other contaminants.

Academics of “Ciencia Digna” (Dignified Science), in unity with social movements, have much work to do. According to new studies, rivers and estuaries around the planet are polluted with antibiotics. In order to address this problem, it is necessary: (1) To investigate and to document resistance gene concentrations in groundwater in Latin America and in environments with high antibiotic use in agriculture and the effects this has on soil, water and air; (2) To identify strategies to stop the massive use of antibiotics and pollutants; (3) To study the consequences of promoting monoculture in agriculture, evaluating its costs and the changes in the epidemiology of infections and the efficacy of treatments.

In addition, it is necessary to collect and to share evidence and success stories at the community level on improve-

ments in human health. Requirements for this work include:

- Communities that promote the production of healthy foods, free from antibiotics and other contaminants;
- collective experiences showing soil repair and healing after being destroyed by deforestation and the use of pollutants;
- stories that show the commitment for health and life, that foster the collective construction of knowledge.

We face a great challenge for the enforceability of the rights of all beings within the One Health framework, as the laws that govern the environmental and health fields show. What are the laws regulating the use of antibiotics in agriculture? What are the mechanisms for demanding reparation when the right to a healthy environment has been violated? Work should be done within a comprehensive, interdisciplinary legal framework that promotes regulatory mechanisms and comprehensive actions. However, we should also work on monitoring and gathering evidence of the lack of rigor in the application of rules and regulations by companies and states, and exert social pressure for taking care of health and life.



WE CALL TO:

- Strengthen a broad, diverse, multidisciplinary movement, committed to defending the health of Mother Earth, and therefore the health of all beings: human, animal, plant and microbial world, which brings together researchers of “Cien-cia Digna” (Dignified Science), trade associations, colleges of animal health professionals, human and environmental movements, movements of city and rural workers, communi-ty leaders and social organizations.
- Recognize that agriculture is key in order to eradicate hunger and ensure food for an expanding population, acknowledging at the same time that the mishandling of agriculture is one of the main causes of global climate change and also those most affected by these changes.
- Prioritize the development of sustainable food systems in the production and consumption of nutritious diets that guarantee human health and the health of the planet. Food systems should minimize the impact on ecosystems and avoid the indiscriminate use of antibiotics.
- Develop community action plans for the appropriate use of antibiotics in human health and animal production, the appropriate provision of these medicinal products; and inte-grate the own knowledge of the communities as a way to ensure the sustainability of the processes.

- Preserve community knowledge and generate new knowledge to increase the productivity of cultivated land and existing pasture; limiting the agricultural barrier; preserving the environment with a lower intensity of resource consumption and appropriate use of supplies.

- Provide interesting opportunities for people living in rural areas involved in agriculture and throughout the food value chain; protect the health of rural people working in agricultural production, through policies that reduce the risks of working in the countryside.

- Promote good practices in the food chain regarding the distribution and preparation phases of food, which guarantee the consumption of safe foods, considering the specificities and capacities of each community.

- Direct campaigns aimed at consumers that encourage the change of practices regarding consumption and demands, as well as to the reduction of losses and food waste, to release pressure from food systems, pressure under which these practices that demand greater production in less time and at lower cost are sustained.

- Maintain community knowledge and integrate it with new knowledge regarding food sovereignty, diversity in the production and consumption of food, and the relationship with the microbiome and its contribution to human health.



One of the challenges is to deepen the respect for food diversity and its impact on microbiome
Photography: ReAct LA

- Promote the review and restructuring of legal frameworks, mechanisms for monitoring, control and citizen oversight in order to regulate the practices of companies that encourage the use of antibiotics and contaminants in various phases of the food system.