



## GA-networking group on Medicinal Plants and Natural Products in Animal Healthcare and Veterinary Medicine

We are a worldwide group of scientists interested in the use of medicinal plants and natural products in animal healthcare and veterinary medicine.

We represent diverse professions, such as veterinarians, pharmacists, agronomists, biologists etc., and we have diverse backgrounds, like research, practice or industry. By now we have members from five continents.

### To whom we address

academics, practitioners, and industrial scientists interested in

- veterinary phytopharmacology
- ethnoveterinary medicine
- animal self-medication and zoopharmacognosy
- therapeutic or preventive clinical applications in animals, or in vitro or ex vivo studies focussing on animal healthcare or animal diseases regarding
  - natural products
  - medicinal plants
  - herbal materials
  - plant derived feed additives



Origins of herbal medicine have their roots deep within the animal kingdom.

*Picture: Ferdinand Worm*



Ethnoveterinary research.

*Picture: Nitya Ghotge*

## Our approach, resources and research methods

- historical literature
- empirical knowledge of livestock farmers, animal keepers, and veterinary practitioners (i.e ethnoveterinary research)
- recent research in medicinal plants and natural products regarding:
  - pharmaceutical biology, pharmacognosy, and plant biochemistry
  - in vitro, ex vivo and in vivo experiments
  - clinical research (in humans, and also increasingly in animals)



Clinical on farm research.

*Picture: Michael Walkenhorst*



In vivo research.

*Picture: Julian Wirth*



Keeping livestock healthy and productive.

*Picture: Nitya Ghotge*

## Our story

For every human being in the world there are about 15 “livestock beings”. Of these livestock beings two third are poultry, 0.3 small ruminants, 0.2 cattle, and 0.15 pigs (FAO, 2013). Additionally a large amount of companion animals live on our planet.

Keeping livestock healthy and productive (without increasing the risk for human health or the natural environment) will be one of the biggest challenges of the next decades. Infectious diseases (including viruses, bacteria and parasites), metabolic disorders, and infertility are the most important diseases in animal production causing tremendous economic losses.

Also in diseases of horses and small companion animals like dogs and cats numerous therapeutic gaps still exist. Owners wish to keep them healthy and safe (i.e. they should not carry resistant bacteria or zoonotic parasites) into old age, since they are perceived as valued “family members” in many parts of the world.

Metabolic disorders, dermatological problems, allergies, muscular skeletal diseases, chronic destructive disorders like cancer or dementia are rather common these days in companion animals. This brings the advances in veterinary medicine even closer to those in human medicine.

Medicinal plants and natural products might be a valuable resource to resolve some of these challenges. However, we



Supporting companion animals up to old age.

*Picture: Jürgen Christmann*

have witnessed over the past decades a sharp decline in the use of medicinal plants and natural products in veterinary education, research and practice, in particular, in Europe. Over the last 10 years there has been some renewed interest in medicinal plants in industrialized countries. On the other hand, the use of medicinal plants, and phytotherapy in veterinary medicine continues to be practiced in Africa, Asia and South America, and is still taught in some universities.

To tap into the full potential of medicinal plants and natural products for animal healthcare and veterinary medicine, high quality research is needed. For that, researchers around the world need to connect and collaborate. The Society for Medicinal Plant and Natural Product Research (GA) is probably the best platform for scientific exchange in the field. The networking group on medicinal plants and natural products in animal healthcare and veterinary medicine was initiated in 2013 at the GA Annual Congress in Muenster, Germany. We wish to take this initiative further and look forward to your active participation!

## We address the following challenges in animal health

- keeping productive livestock in sustainable conditions
- supporting companion animals individually up to old age
- antimicrobial resistance (on animal based food, as well as on surfaces or excretions of animals)
- antiparasitic resistance
- chronic destructive diseases including cancer, muscular skeletal or metabolic disorders

## Animal species we work with

- livestock species like cattle, sheep, goat, swine and poultry
- horses and camels, which can be both livestock and companion animals
- companion animals like cats, dogs, rabbits, guinea pigs and other small pets
- zoo animals
- fish and further kinds of aquaculture

## Our activities

- share scientific findings in our field
  - send your recent publications to Anette van der Aa: [ga-animalhealth@ga-online.org](mailto:ga-animalhealth@ga-online.org)
  - regular meetings during the annual congresses of GA
- a semi-annual network newsletter to inform about upcoming meetings and conferences as well as new scientific publications on medicinal plants and natural products in animal healthcare and veterinary medicine
- share addresses and interests
- create joint project (application)s or public private research partnerships



Antibiotic and antiparasitic resistance – a big challenge in livestock production.

*Picture: Maria Groot*

## Our vision/goal

- to increase the knowledge about the use of plants rich in plant secondary metabolites (for drug use, as well as feed additive or as skin care product)
- improve the availability of plants rich in plant secondary metabolites for animals, in particular for livestock (regulatory affairs)
- increase the awareness of the potential of medicinal plants and natural products in animal healthcare and veterinary medicine
- encourage interdisciplinary cooperation between scientists with different professions and backgrounds to profit from the idea of the one health concept (i.e. naturally clinically diseased animals as easily recruitable models for human therapy)

## How to Become a GA-Member

Download our application form [www.ga-online.org](http://www.ga-online.org)

► membership ► application forms

Fill in the application form and sign. Send it to the GA Secretary: [ga-secretary@ga-online.org](mailto:ga-secretary@ga-online.org)

## Get in touch

### [ga-animalhealth@ga-online.org](mailto:ga-animalhealth@ga-online.org)

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