

TOGETHER,  
BEYOND ANIMAL HEALTH





ONE WORLD,

# ONE HEALTH<sup>®</sup>



## *One World, One Health, One Ceva*

It is useful to remember that the role of the worldwide animal healthcare industry has a significance which goes far beyond the limits of the veterinary field alone. The early pioneers of veterinary medicine, Edward Jenner, Louis Pasteur and James Law realised the importance of "One Medicine". Recently, initiatives to promote a "One Health" approach have been launched both by the European Commission and the American Veterinary Medical and Medical Associations. Ceva recognises the importance of going beyond animal health, in adopting a holistic view of health. Our new mission has three fundamental principles, each of which address concerns over broader social issues:

### ► **Help to feed a growing population**

The issue of ensuring food resources and security is vital. At the current time not everybody in the world has access to sufficient quantities of animal protein. Sustainable intensive agriculture is and will become an increasingly important part of the strategy to feed 9 billion people.

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# ONE WORLD, ONE HEALTH



At Ceva, we will continue to work with our large partners involved in animal protein production to find ever more efficient ways of rearing, which place minimal stress on animals .

#### ► **Combating zoonoses**

We are dedicated to combating zoonoses, diseases which are transmitted between animals and humans and which carry the threat of serious pandemics, particularly in a world of ever-increasing mobility. We want to underline the fact that the safety of food products has recently become a huge subject of public concern. Both existing and future biological products will help to ensure that we are able to provide safe, quality animal protein.

#### ► **Promote the benefits of the essential link between humans and animals**

Companion animals are an important part of our lives, and can contribute greatly to the psychological and emotional well-being in our increasingly urbanised

society. More and more pets will live in these growing cities, we are convinced the veterinary profession must play its role in educating individuals as how best to go about living in harmony with their pets, without creating undue stress.

This threefold mission is an attainable ideal, but is beyond the limits of what one company can achieve alone. This is why we wish to publicly debate our approach, as it is only together with other health professionals that we will be able to meet the demands of future world health.



*“Putting Ceva at the centre of the ‘One World, One Health’ program is a key initiative. I feel that it’s important for people to understand that they’re not just working for money, that they’re not just working to sell veterinary products, but that with their work they are helping to build a better future -for people all over the world.”*

*Marc Prikazsky, CEO, Ceva.*



## *Ceva on the front line against Zoonoses*

We use the term zoonosis to denote any infectious disease or parasite that can be passed from animals to humans. The range of these conditions is so broad that it is difficult to summarise them as one group: they certainly do not have similar clinical profiles or incidence rates, nor do they all present the same level of risk of contagion and/or severity. Some zoonoses can be fatal to humans; others have less severe effects but can be very costly to public health authorities. Ultimately, whatever the rate of animal to human transmission, such diseases can create severe financial losses for farmers. The combination of all these different parameters gives rise to a particularly broad typology.

But, aside from their broad range, the key factor, which causes all forms of zoonoses to appear as a major global health threat (to both humans and animals), is that in a world characterised by an extraordinary mobility of people and animal products, any localised zoonosis outbreak can rapidly become a more widespread problem, or even develop into a pandemic. Such a scenario is even more worrying since it gives viruses the opportunity to evolve through mutations. In this way, a virus that is currently merely contagious could meet a highly harmful but non-contagious virus; the crossing of the two could create a new strain of the virus, which is both virulent and highly contagious, thus posing a severe danger to human and animal populations.

When we consider the question in this light, it is clear that dealing with zoonoses is as much a question of immediate treatment as it is of prevention. But it is the diversity of zoonotic diseases that makes prevention so difficult.

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## Q FEVER

Due to the vagueness of its symptoms, Q Fever is a particularly 'discreet' disease, and can often pass unnoticed. It is one of the zoonoses which experts define as widely under-diagnosed that carries considerable risks.

The difficulty of diagnosing Q Fever is largely due to the fact that its presence can only truly be confirmed by biological analysis, and for this to happen the clinician treating the case must consider the possibility of Q Fever in every case of unexplained infection.

And yet the consequences of this disease can be very serious. It is an infection, which can affect all mammals, and thus all domesticated animals, and is most likely to affect ruminants. Q fever's most serious effects are on the reproductive system: mastitis, uterine infections, and miscarriages are all potential symptoms. The financial cost to the farmer can be substantial.

The *Coxiella Burnetii* bacterium is found in animal secretions and bodily wastes, and the most common route of infection is the inhalation of infected particles.

As a result farmers are at risk, and in a wider sense so are members of

the public in general when in proximity to farms. Epidemiological studies, which are nonetheless very rare due to the low profile of this disease, show that the rate of infection can be very high in the human population: a study conducted in the south of France found that 5% of people in Marseille were carrying the pathogen, and in some Alpine villages the rate of infection was as high as 30%. While the symptoms may be vague, the risk to pregnant women is considerable. A study of 12,716 pregnant women conducted in 1996 in Provence found that 0.08% had Q Fever, while a similar study of 1,834 women in Martigues in 2000 revealed an infection rate of



0.13%. More than half of the women found to have Q Fever gave birth prematurely, or suffered miscarriages.

However the incident, which has recently focused attention on Q Fever, and which gives a clear idea of the potential risk inherent in each zoonosis, is the epidemic witnessed in the Netherlands in 2008. This outbreak occurred in a region known for goat farming, and a similar rise in the incidence of Q Fever was recorded in Denmark and Germany at the same time. By November 25th of 2009, authorities in the Netherlands had recorded 2,293 human cases of Q Fever, of which 6 proved fatal. On December 9th the Dutch Health and Agricul-

ture ministers announced the slaughter of between 15,000 and 20,000 goats and sheep deemed to be a health hazard, regardless of whether or not there was proof that these animals were infected.

This case serves to illustrate the difficulties inherent to preventative policies, particularly given that this 'discreet' disease has not been the subject of much research. Ceva has developed an efficacious phase I vaccine: Coxevac®, and sales of the product have exploded due to demand from the Dutch government. To fill this urgent order we had to postpone some sales and set up a new production unit in our Budapest factory.

## SALMONELLA BACTERIUM

**The salmonella bacterium poses a radically different problem. Salmonella infection is one of the most common, widespread and costly forms of food poisoning.**

While farmers may not be at great risk, the presence and effects of salmonella on humans are well identified. Salmonella poisoning, or salmonellosis, is contracted through consuming infected meat, poultry, eggs or milk. The most common symptom is gastro-enteritis, which usually does not have any lasting side effects or require medical treatment. But salmonella poisoning can be fatal, particularly in young people, the elderly or patients with immune systems weakened by other illnesses.

Unlike Q Fever, salmonella carries huge economic costs. A rising number of cases, caused partly by the bacterium's increased resistance to antibiotics, have made salmonella a serious financial issue for public health authorities.

There are an estimated 40,000 annual cases of salmonella infection in the USA of which 400 are fatal. Because many milder cases are not diagnosed or reported, the actual number of infections may be thirty times more.

In Europe, salmonellosis is one of the main food borne diseases, with a high economic impact. In Denmark, annual costs related to cases of salmonella food poisoning are

estimated to amount to 0.009% of the country's GDP.

The precise global impact of this disease is difficult to quantify, as many countries do not report on its incidence.

But one can well understand that in this case animal biology must rise to the challenge, because of the great public interest. The proliferation of drug-resistant strains, linked to a badly regulated use of antibiotic treatments, adds a new level of importance to the vaccination of animals at the source of the chain of infection. In this case the close links between animal and human health issues become clearer than ever.

Drawing on our experience in avian biology, and expertise in salmonella control in poultry, Ceva recently added two new products to its extensive range of salmonella vaccines; both are designed for the vaccination of hens laying eggs for human consumption. These two new vaccines are Cevac® Corymune 4 and Cevac® Corymune 7. These new products are genuine "vaccination solutions": with antigens of Salmonella, Coryza and the main viral diseases affecting poultry in one vaccine, allowing for a single (all-in-one) injection. This innovation puts salmonella vaccination firmly within the reach of all egg producers.

# ONE WORLD, ONE HEALTH

## AVIAN FLU, A TICKING TIME BOMB?

Avian flu, caused by the A strain of the flu virus, is an infectious disease affecting birds, domesticated poultry included. In poultry the virus can produce a range of symptoms, from a relatively benign illness, which may pass unnoticed, to an infection that is rapidly fatal and leads to mass deaths, wiping out poultry industries.

In theory, avian flu does not affect humans. But in certain cases of very close contact, highly infectious strains of the virus have provoked serious respiratory problems in humans. In most such cases, the human victims had had close contact with infected birds, or with objects contaminated with their droppings. The problem of avian flu is thus primarily an economic issue, which directly affects poultry farmers in a certain number of countries, including among others Egypt, Vietnam, Indonesia and Mexico.

For these reasons alone research into effective vaccines is justified. But given the ability of viruses to mutate and cross-breed, experts are concerned that highly contagious viruses which pass easily between animals and humans could come to carry genes acquired from the highly virulent strains of avian flu.

It is this grim prospect that elevates vaccination against avian flu to a new level of importance.

Ceva has developed a vector vaccine which is particularly effective in protecting poultry from avian influenza: Vectormune® HVT-AI.

This vaccine is currently undergoing further tests, with the support of the FAO and the OIE.

Because of the persistence of the disease in chicken populations (as well as ongoing human cases) in some countries of the Middle East and Asia, the vaccine has undergone a heavy testing program during 2010. This work confirmed existing data and enlarges our hopes for the potential benefits of the vaccine.

Vectormune® HVT-AI is much easier to use than classical vaccines under the routine working practices of the poultry industry. It works in chickens from the field as well as in laboratory chickens; it works quickly, produces long immunity and can adapt to some variations of the field virus. It also reduces the virus pressure in case of contamination.

The vaccine should be available to poultry producers in Egypt in the coming months and in Asia in the near future, thanks to ongoing collaborative work with local scientific institutes, as well as support from FAO and OIE.



## THE HUMAN COST OF TRYPANOSOMIASIS IN SUB-SAHARAN AFRICA.

Human Trypanosomiasis or Sleeping Sickness threatens millions of people across 36 countries in Sub-Saharan Africa; the WHO estimates that up to 70 million persons could be affected, but only a minuscule proportion of these will receive medical attention, either in the form of regular treatment at a health centre with the technology to screen for the disease, or by receiving protection from the sources of the disease.

During recent epidemics, tests conducted in certain villages in the Democratic Republic of Congo, Angola and South Sudan revealed an infection rate of 50%. Trypanosomiasis was identified as either the largest or second largest cause of death in those communities affected, greater even than HIV/AIDS. This gives some indication of the work that remains to be done on this front, particularly through the medium of animal healthcare. Ceva has long advocated such a solution, most evidently in our SOS Uganda Plan.

However the adverse effects of this disease do not stop at its terrible mortality rate. Trypanosomiasis also deprives underdeveloped rural regions of an important economic resource: cattle farming. Such is the power of this disease to impede cattle breeding that for a long time, before the introduction of trypanocide drugs, maps of species distribution showed that areas with large populations of tsetse flies (carriers of the trypanosomes which cause the disease) contained virtually no cattle, and vice versa.

Even today, in infected zones, animal trypanosomiasis is responsible for a 50% reduction on livestock holdings, and thus meat and milk production. Some experts estimate that if the tsetse fly was removed, an extra 90 million cattle could be raised.

It is for this reason that Ceva has established partnerships with a number of African countries, supplying products and services as a way of contributing to the prevention of future trypanosomiasis epidemics.

## CEVA ON THE FRONT LINE AGAINST ZOOZOSES: THE FIGHT AGAINST TRYPANOSOMIASIS

**Ceva plays a major role in the fight against animal trypanosomiasis: our teams research, develop and supply products and services to people as part of an 'integrated' approach to this battle.**

This focus offers a brief insight into the diverse range of actions that Ceva has developed to combat zoonoses: our commitment to the 'SOS Uganda' program, our educational campaigns in West Africa and our support for academic research.

► SOS Uganda, a successful partnership –In the course of the past decade, sleeping sickness has taken root in two areas of Uganda: a northern pocket suffering from an outbreak of the chronic 'Trypanosoma brucei gambiense' strain, and a southern pocket afflicted with 'Trypanosoma brucei rhodesiense', an acute form of sleeping sickness. Epidemiological studies conducted by the University of Edinburgh have demonstrated



# ONE WORLD, ONE HEALTH

that cows are unaffected carriers of 'Trypanosoma brucei rhodesiense', the parasite responsible for one of the forms of human Sleeping Sickness. Cattle were maintaining the presence of the parasite in the southern pocket, and helping it to spread further north as a result of repopulation programs. A major consequence of these migrations is the risk that the northern and southern pockets might become connected, which would make differential diagnosis, treatment and monitoring of the different strains of Sleeping Sickness impossible. Urgent action was needed. In response to an appeal by the government of Uganda, the SOS Uganda project was launched as a collaboration between two universities (Makerere in Uganda and Edinburgh in Scotland), the local authorities (COCTU), Ceva Animal Health and IKARE.

Innovative, integrated approaches to fighting the disease were developed within the framework of this project, and as a result the project succeeded both in curbing the epidemic and putting in place sustainable monitoring procedures. The future impact of the gains made in this project is guaranteed by the veterinary students who were trained as part of the scheme. They will ensure the diffusion of information about methods for combating disease, increase access to veterinary medicines and materials, and take responsibility for the education of farmers.

In his opening speech to the 30th ISCTRC conference (the International Scientific Council for Trypanosomiasis Research and Control), held in Kampala from September 21st to 25th 2009, Ugandan President Museveni specifically referred to the SOS program, declaring that:

*“Uganda has managed to prevent the merging of two discrete pockets of Sleeping Sickness, thanks to the ‘SOS Uganda’ eradication campaign, led by a public-private consortium.”*

For the staff and partners of Ceva, these good results are a great source of satisfaction, and serve to demonstrate the new importance that animal healthcare has assumed: it is becoming increasingly more significant as a means of protecting the health of humans.

*Follow their story at [www.stampoutsleepingsickness.com](http://www.stampoutsleepingsickness.com)*



Martin Mitchell,  
Ceva  
Communication  
Director

► **Training farmers...** -In West Africa, Ceva has assembled a network of six professional animal healthcare partners over the years, each of whom works with two or three assistants. Their role (in addition to selling our products) is to promote the improvement of animal healthcare, and thus increase productivity. Every year they organise and run hundreds of training and information sessions to make sure that farmers are aware of the correct methods for using medicines, particularly trypanocides. The integrated control methods for trypanosomiasis are the main focus of these programmes. Ceva has developed educational tools for this purpose, and drawn up medical guides in collaboration with our scientific partners, such as CIRAD (the Centre for International Cooperation on Agronomic Research to Stimulate Development).



► **Supporting research** -In terms of research, a major breakthrough was made in 2009 by Professor Theo Baltz and Doctor Virginie Coustou of the University of Bordeaux II. They developed the first satisfactory method for in vitro production of 'T. Congolense'. This tool, developed with the support of Ceva, will allow researchers to gain a better understanding of the disease, and thus to devise means and methods of controlling it.

In addition to these long-term projects, Ceva has established a number of short-term partnerships with local and international research institutions, in order to continue developing innovative, sustainable methods of controlling disease vectors.



## *CEVAC Transmune<sup>®</sup> IBD, A global solution that works to solve local problems*

As day old chicks move from the hatchery to the farm, broilers need to be vaccinated against Gumboro disease, each and every day.

Achieving adequate levels of protection through vaccination on the farm is very difficult. Vaccines are generally given in the drinking water. Field men know that it can't be guaranteed that the vaccine solution will reach every single bird and that every single bird will drink the needed amount of vaccine solution. As consequence, it can't be guaranteed that every chick will be properly vaccinated.

The timing of the vaccination is a very complex decision for the farmer and veterinarian – what is the appropriate vaccination age for each flock is the critical question.

# ONE WORLD, ONE HEALTH

Maternally derived antibodies, passed from the hen to the chick via the egg yolk, can neutralise the Gumboro vaccine virus, preventing or reducing the vaccine take, and consequently the immune response. Choosing the proper time to administer the vaccine is a major and not easy task.

This is the foundation of enormous advantage of Ceva's CEVAC® Transmune IBD vaccine with its innovative immune complex technology. The vaccine can be administered at the hatchery, either 'in ovo' (in the egg) or by a single subcutaneous injection at day-old, as the only Gumboro vaccination in the life of the broiler. The vaccine consists of the Gumboro vaccine virus and, bound to it, specific Gumboro antibodies. This makes it possible for the vaccine to enter the body without being recognised by the circulating Gumboro antibodies as foreign. These vaccine-antibody bonds (the immune complex) start to deteriorate over time, and there is a "release" of Gumboro vaccine virus in the body of the broiler. As long as the circulating Gumboro antibodies are high, the vaccine virus will just be neutralised. As soon as the circulating Gumboro antio-

dies decline to a low enough level, the vaccine virus will infect the target cells, start replicating and the necessary immune response will follow. The result is a mass vaccination in the hatchery with an individually timed immune response in each chick.

In this way, CEVAC® Transmune IBD technology brings much less stress to both the lives of producers and their chicks by providing lifetime protection, straight from the hatchery.



## So what was the problem in South Africa you may ask?

In the first place there are several different forms of Infectious Bursal Disease (IBD), commonly known as Gumboro disease. The disease can be more or less virulent, given the type of strain present and when this initiative began in 2007 no one in South Africa had a complete picture of what strains were present in this country.

Ceva conducted a number of national surveys, taking bursal samples from chickens in production and analysing them in their European research centre based at Ceva Phylaxia in Hungary. This has helped to determine the exact presence and degree of virulence of the differing strains of Gumboro disease present. Once the company was sure of the scientific ground, the second challenge was to convince producers that the new vaccination strategy would work. For farmers who have been taught for years that vaccination on the farm was essential to protecting the life of their chicks, to suddenly persuade them to have

confidence in the fact that the day old chick would arrive “fully protected”, was a major change.

Ceva teams therefore targeted areas in which poultry producers had been the most badly affected by the virulent strains of gumboro, to prove to them that vaccination with Transmune® would work. Firstly they conducted extensive workshops together with day old chick suppliers and then carried out several field trials. Once trust was established, the programme could be extended to other areas.

Finally with this huge potential market of customers waiting for a better and safer solution, Ceva had to convince the day old chick producers themselves, that they should also move to adopt the new technology.

The 850 000 South african poultry producers who need to vaccinate their chicks each day, now have the peace of mind that with Transmune technology they have one less problem to worry about.

## BEYOND VACCINES TO ABOVE-AND-BEYOND SERVICE

**CEVAC® Transmune IBD, with its innovative vaccine technology has been included in a complete program integrating the vaccine, automatic vaccination equipment (allowing hatcheries to vaccinate day old chicks safely), training and technical back up for hatchery staff. This Service is called the CHICK Program.**

Ceva therefore puts into place a truly integrated platform of vaccination, with personalised follow-up. CEVAC® Transmune IBD is provided together with automatic vaccination equipment and serviced by a dedicated hatchery team to ensure that the vaccine is always correctly administered. The equipment is itself very innovative and flexible allowing both live and inactivated vaccines to be administered at the same time, by injection and spray, thus allowing producers to vaccinate against several diseases at the same time.

A built in counting system ensures that the

number of chicks treated is accurate, thereby ensuring that each one receives a dose of vaccine.

Again this change may sound simple but in practice it meant a complete turnaround in the way Ceva conducted its business. The advantages of mechanisation can only be realised if well-trained staff properly operates the vaccination systems and if there is back up support to ensure that the machines are properly serviced, replacing certain disposables at regular intervals.

Ceva sets up several technical teams, who now spend their entire lives working “hand in glove” with their hatchery colleagues to ensure the quality of the chicks delivered to farm.

This integrated approach is welcomed by producers that can value the improved well-being and productivity of their flocks.

# ONE WORLD, ONE HEALTH

## INNOVATION NEEDS THE SUPPORT OF HARD WORK

Innovation once again is required in every approach to the business. The technical breakthrough provided by advanced immune complex technology would never have provided the benefits that it is giving to poultry producers, without the Ceva teams, who often drive to hatcheries at 4.00am each morning to provide the technical support required.

### Does it make a difference?

Listen to what our customers in South Africa had to say:

*“I think the length to which Ceva has gone by doing what they are doing now... I don't think there are other companies who are doing what they are doing, they are really a family and they are part of our business, which is good, positive”*

*Wynand Schreiber, Hatchery Manager, Eagles Pride, South Africa.*

*“There is certainly not another vaccine supplier to the poultry industry in this country that gives us the technical service and back up that Ceva does at the moment.”*

*David Stock, Chief Operating Officer, National Chicks, South Africa.*



# Well-being together



Dealing with behavioural disorders in companion animals has become one of the challenges of society. Ceva is providing an original response within the more general task it has set itself of addressing each and every dimension of a problem – by seeking to offer efficient products, of course, but also by fitting this offer into an integrated service involving each protagonist in the chain of partners.

In urbanised western societies, pets have become a powerful phenomenon: more than 68% of households in the USA, 47% in England and 52% in France have a companion animal, with cats and dogs leading the way.

For hundreds of thousands of years, Man has forged increasingly close links with nature in general and animals in particular. This relationship first involved a mixture of myth, fear, fascination and affection, before domestication finally gave animals a whole new dimension – first that of the invaluable worker, then that of the day to day companion.

The longstanding nature of this relationship is what is probably responsible for the status that our societies continue to grant pets. In a world in which three-quarters of the population live in towns and cities – a figure that rises to 90% if suburban areas are included – pets

have prolonged the stabilising link between Man and Nature. Our attachment to them is as strong as ever and they provide a reassuring, soothing presence, in particular for lonely or isolated people or those weakened by old age or disability.

But although the reasons for maintaining this link are worthy, pets do raise a number of difficulties.

Because, if the world has become stressful for people, the same certainly goes for companion animals. They too suffer from stress; more than us in fact, as they have less control over the world that surrounds them and are less equipped to express their anxiety, to make themselves understood, and to gain our support.

It is far from easy for a pet owner who has no training in ethology to decipher the behaviour of animals, and even harder for him to understand the ways in which they communicate.

The result is a reciprocal misunderstanding, which further raises the anxiety of the animal, which will eventually express this unhappiness in ways likely to annoy the owner and other people. These stress-related behavioural issues are one of the prime reasons behind pet abandonment or euthanasia.

# ONE WORLD, ONE HEALTH

All the players in the companion animals sector –from breeders to owners via vets and, of course, animal protection organisations– have been working hard to find solutions to these behavioural problems. Because along with the matter of ethics, a social issue also looms large –that of the cohabitation between companion animals and people in modern society.

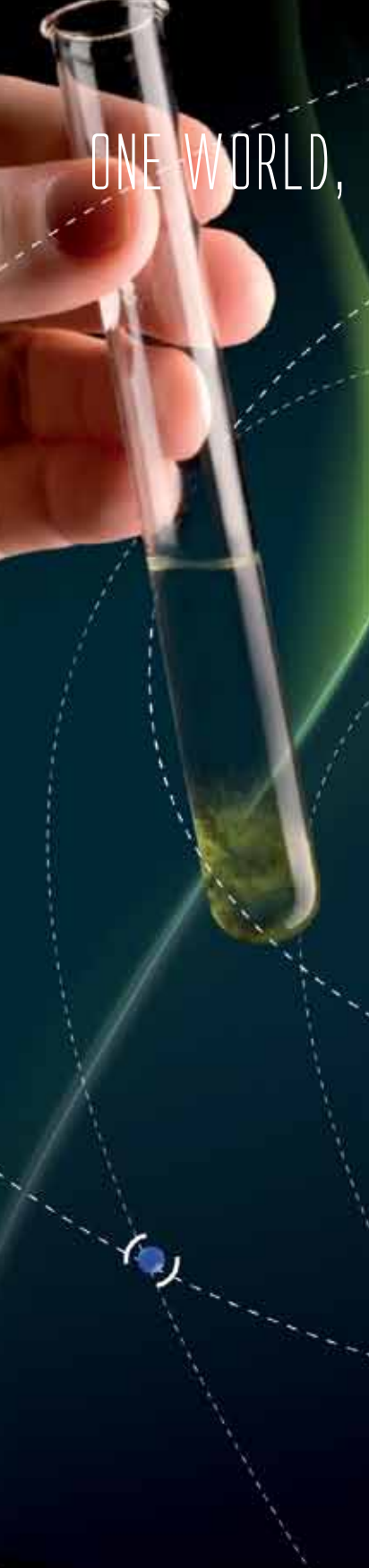
Ceva has long since made the human/animal relationship one of its key areas of work by taking a closer look at the fields that could provide harmony in this relationship: cardiology, pain and behaviour. Ceva has sought to develop effective products but also a service-based relationship in order to allow pet owners to prevent and control stress-linked and behavioural problems.

In terms of products, Ceva develops and distributes a range of innovative pheromone-based drugs. Pheromones are highly active chemical substances that can

be detected at long distances and play a crucial role in intra-specific communication between animals. They make animals feel secure in a relationship, particularly that between mother and offspring. By developing the synthetic pheromones Feliway® and DAP®, Ceva has given pet owners the ability to recreate a familiar, soothing environment for their animals thereby alleviating stress and limiting inappropriate behaviour.

By focusing its efforts on original dosage forms, the company has also managed to create easy-to-use products using diffusion methods and thus do away with the more complicated administrations.

In terms of service, in 2009 Ceva committed to owner education programs which increasingly involve a whole chain of partners, from the lab to the customer and including vets and specialised associations.



► In the USA, Ceva has partnered the **Leader Dog** organisation. **Leader Dog** is a not-for-profit association which breeds and trains guide dogs and then gives them to visually impaired people, thereby helping them to improve their mobility, their independence and their quality of life. In this partnership Ceva provides the association with DAP® collars for dogs that are in the learning phase.

► Addressing a wider public, in France Ceva supports and contributes to a new educational approach proposed by the Formaveto association, called **Assisted Veterinary Conduct** (Conduite Accompagnée Vétérinaire - CAV). CAV was born from the observation that dog owners are experiencing more and more difficulties with their animals. To provide a response to this problem, the veterinary profession decided to offer support to owners and their dogs with a twofold objective: help the owners educate their dogs in order to make them more “civic minded”, and detect their behavioural disorders as early as possible. By following a course of monthly visits, owners learn how to restore a bond of trust with their animal: this bond is indispensable if they are to live with the animal in an increasingly restrictive urban environment. On the strength of its expertise in animal behaviour, Ceva has contributed to the production of the behavioural development monitoring tables that are so crucial during the learning process.

► In the UK, Ceva has worked alongside several organisations to improve the welfare of dogs and cats in the boarding environment. **The Dog’s Trust**, for example, now places a dog-appeasing pheromone collar on

every dog entering their re-homing centres. Partnerships were also established with **The Cat’s Protection League**, **Hearing Dogs for the Deaf**, **The Retired Greyhound Trust** and several **RSPCA** centres. The use of pheromones is quickly becoming an important component of improving the welfare of dogs and cats experiencing the stress of re-homing.

► Meanwhile in Australia, Ceva’s newly formed subsidiary also responded to an emergency request from Queensland RSPCA to provide DAP® collars to help alleviate stress in a number of dogs recovered from horrific backgrounds.

**Ceva is rightly proud of its concrete action previously in its pioneering role and now offering an integrated, responsible approach, with ethics to the fore as always.**





It's time to think again about the way we approach the world's health. Animals and humans have never been so dependent and yet so far apart. Whether it's serving the needs of a pet owner in the world's growing cities, or a large group working to feed a population of 9 billion by 2050 – the animal health industry has a vital role to play.

Have you thought about tomorrow ?



As Ceva we are committed to meeting these challenges and together, with you, we will help build a healthy New World.

*Together, beyond animal health*





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