

# **CURICULUM VITAE**

**Gilles HANTON, DVM, DABT, ERT**

## **Contact**

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## **Appendices**

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|--|-----------------|
| <b>1: Experience in toxicology (pharmaceutical Industry)</b> | <b>pp 2-5</b>   |
| <b>2. Experience in toxicology (Consultant)</b>              | <b>pp 6-7</b>   |
| <b>3: Continual Education</b>                                | <b>p 8</b>      |
| <b>4: Attendance to congress</b>                             | <b>pp 9-12</b>  |
| <b>5: Publications</b>                                       | <b>pp 13-25</b> |

Curriculum vitae of G. Hanton, DVM, DABT

*Appendix 1*

**DETAILED INFORMATION ON PROFESSIONAL POSITION IN TOXICOLOGY (THREE MAJOR PHARMACEUTICAL INDUSTRIES)**

December 1983 - June 1986 : **Study Director in the Toxicology Department of Continental Pharma** (subsidiary of SEARLE) Mont-Saint-Guibert, Belgium.

At Continental Pharma I worked in the position of study director reporting to Dr J. Roba, Senior Director, Product Safety, Europe. I was in charge of all preclinical toxicological safety evaluations with developmental drugs, in primates (*Cynomolgus* monkey). My responsibilities included protocol design and execution of regulatory and mechanistic, toxicology studies, supervision of two toxicology technicians, performance of blood sampling, clinical examinations, ophthalmology and interpretation of all in-life and clinical pathology (clinical chemistry and haematology) data, and composition of the toxicology reports with inclusion of the results of the pathology/histopathology section. During my employment at Continental Pharma/Searle, I performed two chronic toxicity (2-year), several subchronic and pharmacokinetic studies in primates. In addition, I acted as study director for numerous short-term toxicology studies in rodents, i.e. rats and mice. All toxicological safety evaluations were performed in compliance with F.D.A. Good Laboratory Practice Guidelines for preclinical testing of developmental drugs.

I regularly participated in necropsies of rats, mice and monkeys and I personally performed macroscopical examinations.

June 1986 up to May 2008 : **Toxicologist (study director) at the Toxicology Centre of Pfizer Central Research Europe in Amboise, France.**

In June 1986, I joined the Toxicology Centre of Pfizer Central Research in Amboise, France, in the position of Study director, reporting to the Director of General Toxicology. I was responsible for preclinical toxicological safety evaluation of Pfizer developmental drugs. My responsibilities at Pfizer included protocol design, clinical examinations, including performance of ophthalmologic and electrocardiographic examinations and their interpretation, supervision of technician teams responsible for practical aspects of the toxicology studies, and report writing integrating all results of clinical pathology and pathology evaluations. I was responsible for the entire preclinical toxicology program of a number of developmental drugs.

During the period of employment with Pfizer, I have acted as the responsible study director of a large number of acute, subacute, subchronic, chronic and carcinogenicity studies in laboratory rodents, dogs and marmosets monkeys. All regulatory toxicological safety evaluations were performed in compliance with U.S. F.D.A. and current French Good Laboratory Practice Guidelines for preclinical testing of developmental drugs.

I was also Study Monitor for a number of studies contracted out to various CRO's. They included, inhalation and continuous infusion studies, experiments on cynomolgus monkeys and phototoxicity/allergy in guinea-pigs

In addition, I have acted as responsible investigator and study director of various mechanistic toxicology studies conducted with the objective to investigate the mechanism of toxicological action of developmental cardiovascular and other drugs. During the course of these investigations I acquired an in-depth knowledge of cardiovascular pharmacology and toxicology. In particular I have conducted a number of studies assessing the development of vascular and cardiac lesions

I have also a major interest in cardiac electrophysiology and electrocardiography. I have therefore developed an experimental program investigating the effects of drugs on cardiac repolarisation. I have also established echocardiography in dogs and marmosets monkeys as an investigational tool in toxicology

Within the investigation of drugs which possess potential antitumour activity through modification of endocrine balance I have performed various experiments with the DMBA-induced mammary tumour model in rats.

I was also involved in an experimental program investigating the hepatotoxicity of a number of drugs in view of establishing the value of plasma chemistry parameters and new biomarkers (nuclear magnetic resonance, genomics, proteomics)

I had a leading role in the ILSI program for evaluation of transgenic animals models for carcinogenicity testing and I have performed studies using XPA or Tg.Ac mice

I was a regular member of the "Early Candidate Management Team" of Pfizer Central Research Europe, a multidisciplinary expert group that periodically reviews results of pharmacological activity, clinical testing and toxicology of developmental drugs. I have therefore become familiar with issues such as clinical efficacy of drugs, drug adverse effects, risk/benefit evaluation in the development of novel drug candidates and regulatory issues. I have followed the development of new pharmaceuticals, from discovery to registration. I have actively collaborated to the submission of regulatory documents to authorities and further interactions

In addition to my work as a Study Director in preclinical toxicology, I had the following responsibilities as **Manager of Investigative Toxicology** (1992-1997) and **Senior Scientific Expert** (1998-2001)

- a) Planning and designing mechanistic studies in collaboration with other Study Directors and scientists of the Research centre.
- b) Presenting these experimental plans to senior management.
- c) Reviewing study protocols.
- d) Supervising study performance.
- e) Coordination of report preparation and review.
- f) Designing studies to resolve toxicological issues arising during drug development and to establish new methodologies in the Research Centre
- g) Leadership of project groups including scientists and technicians
- h) Key role in interfacing the statistician with biologists (improvement of statistical methods, customised statistical analyses for specific exploratory investigation, data base establishment)

From 2002 **Associate Research Fellow**

In addition to my work as Study Director I had a role in advising juniors toxicologists, help in issue solving and in improvement of processes in general toxicology

I had also responsibilities as the representative of Toxicology in interdisciplinary working groups at the European or Worldwide level and in the organisation of projects in regulatory or experimental toxicology. This work was mainly focussed on the evaluation of the safety of new drugs at an early stage of development. I was therefore member of interdisciplinary teams and I played a role as an interface between discovery and toxicology. I worked in close collaboration with the safety pharmacology group.

In the recent years I have been a leading scientist for the development of marmoset monkeys as a new experimental species in toxicology

From 2006 I have been involved in toxicological evaluation of biologicals.

I was deeply involved in collaboration with Imperial College in London and I was the leader of a Strategic Alliance Project with the Faculty of Medicine of the University of Tours, France.

May 2008 to May 2010: Senior Director Preclinical Toxicology at Tibotec

- Development of an experience in toxicity and genotoxicity of antiviral drugs, mainly targeted against hepatitis C.
- Establishment of the strategy for toxicological evaluation and issues solving within 3 projects
- Supervision of the experimental work performed for toxicological evaluation
- Preparation of toxicological sections of Investigator Brochures, IND submission, CAC documents, End of Phase I and Phase II documents
- Collaboration in early and full development of new drugs, as the representative of the toxicology department in specific projects teams and in an overall scientific/strategic team

**MANAGERIAL EXPERIENCE**

In my position at Searle, I had the responsibility of 2 technicians

At Pfizer the toxicologists have no administrative responsibilities for technicians. However for each experiment a team of technicians is allocated to the scientist and therefore I used to supervise people during the performance of the study and interpretation of data.

For research projects, teams of scientists and technicians are temporary formed and as an experienced toxicologist, I have led a number of these groups.

For a few years, a young toxicologist reported directly to me and I had to train him and to supervise his job.

On 2 occasions I had pre- or post-doctoral fellows reporting to me for specific research projects.

During my career, I had the opportunity to meet a number of experts in the field of toxicology, in particular consultants to Pfizer or CROs and I have developed professional contacts with a number of toxicologists from other companies and senior scientists in Universities.

## *Appendix 2*

### **EXPERIENCE IN TOXICOLOGY as CONSULTANT**

**Current position: Consultant for the pharmaceutical and biotechnological industry and Contract Research Operation (CROs)**

**Start in September 2010**

#### **Collaboration with the following companies**

1. Medium size biotechnology company (Belgium)  
Toxicological evaluation of antibodies derivatives
  - Key role as representative of drug safety/toxicity evaluation in a interdisciplinary project group for an inhaled new compound
  - Monitoring of contracted out studies
  - Safety strategy establishment, scientific advice and issue solving for different new compounds
  - Writing of the safety/toxicology section of an IND
  - Preparing answers to authorities questions on submission dossiers
2. Medium sized pharmaceutical company in collaboration with a large size CRO (France)  
Writing the Non Clinical Overview of a new compound for submission dossiers
3. Small size pharmaceutical company (France)  
Expert evaluation of safety, toxicology and clinical risk of new compound, with a particular focus on cardiac adverse effects
4. Medium sized pharmaceutical company (France)  
Toxicology/safety representative in a Scientific Committee
  - Expert evaluation of new compound in view of licencing in
  - Follow up of safety/toxicity assessment
  - Advice for further development
5. Large pharmaceutical company (France and Belgium)
  - Representative of drug safety/toxicity evaluation in an interdisciplinary project group for a new compound
  - Safety strategy establishment, scientific advice and issue solving
6. Medium size CRO (Croatia)
  - Training of technicians and junior scientists
  - Advice in quality improvement of toxicological studies performance

7. Generic drug company (Croatia)  
Toxicological evaluation of impurities for 6 different drug formulation
  - Scientific advice
  - Answering to authorities request and questions and writing of corresponding official documents
  
8. Very small size pharmaceutical companies (Belgium)
  - Toxicological reference for discovery and development of new compounds
  - Scientific advice
  - Safety strategy establishment and monitoring of contracted out studies

*Appendix 3*

**CONTINUAL EDUCATION**

- 1984 Course of E.C.G. interpretation (in humans), Faculty of Medicine, Université de Louvain, Belgium.
- 1985 BIBRA (British Industrial Biological Research Association) workshop : Immunotoxicology, London.
- 1987 BIBRA workshop : Toxicological aspects of carcinogenesis, London.
- 1987 Stage technique destiné à l'industrie pharmaceutique : choix des tests statistiques, Université Louis Pasteur, Strasbourg, France.
- 1988 - Erik Krauthammer : training in management.
- 1989
- 1989 Training for Pharmaceutical Industry : cardiovascular drug overview, London.
- 1989 Atelier Inserm : Utilisation de la vélocimétrie Doppler en pharmacologie cardiovasculaire animale et clinique, Paris.
- 1990 Mid. America Toxicology Course, Kansas City, U.S.A.
- 1991 Center for Professional Advancement : Bioavailability of drugs and Pharmacokinetics, Amsterdam, The Netherlands.
- 1993 Coping with nongenotoxic carcinogens: mode of action detection and risk assessment, continuing education course AM#4, SOT meeting, New Orleans, USA
- 1994 Journée d'échocardiographie canine et feline, National Veterinary School , Lyon, France
- 1994 Adverse Drug Reactions, Health Care Education Services, Edinburgh, UK
- 1996 Pharmacology of asthma, National Heart and Lung Institute, London
- 1998 Physiologie et Pharmacologie du Système Nerveux, Université Louis Pasteur, Strasbourg, France
- 2004 Gérez vos priorités, maîtrisez votre temps, Bernard Bruche France training, Paris
- 2006 The neurological examination of laboratory animals, training by Dr. L. Furher, Amboise, France
- 2007 - The biology of peri- and post-natal development. Continuing education course, SOT meeting, Charlotte, USA  
- Protein therapeutic: assessment and impact of immunogenicity on study design and interpretation. Continuing education course, SOT meeting, Charlotte, USA  
- Non Clinical Safety Evaluation of Biopharmaceuticals  
16<sup>th</sup> Summer School in Immunotoxicity, Lyon
- 2008 - Immunotoxicity evaluation: from the Bench to the clinic  
17<sup>th</sup> Summer School in Immunotoxicity, Avignon
- 2010 Mitochondrial toxicity. Continuing education course, SOT meeting, Salt Lake City, USA



*Appendix 4*

ATTENDANCE TO CONGRESS AND SCIENTIFIC MEETINGS

- First international scientific congress on alternative methods to the use of animals in experiments.  
Versailles (France): May 25-26, 1987.
- Le rein en toxicologie : meeting M.S.D., Riom (France) : October 23, 1987.
- Congress of C.N.V.S.P.A.  
(Conférence Nationale des Vétérinaires Spécialisés en petits animaux) :  
Specialized groups meeting : cardiomyopathies, Paris : November 25, 1988.
- Second meeting of the International Neurotoxicology Association,  
Barcelona - Stiges (Spain), May 22-26, 1989.
- Eurotox meeting, Leipzig (DDR), September 12-14, 1990.
- Immunotoxicologie, INSERM Congrès, Aussois (France), December 12-15, 1990.
- XIIth annual meeting of the American College of Toxicology. Savannah G.A.,  
U.S.A., 21-23 Oct 1991.
- VI th International congress of toxicology, Rome, Italy, 28 June- 3 July 1992
- 32th annual meeting of SOT, New Orleans , 14-18 March 1993
- Joint meeting of the *Deutsche Gesellschaft für Pharmacologie und Toxikologie* and of  
the *Association Française des pharmacologistes*, Lille, France, 6-8 October 1993
- Symposium : Continuous and intermitent infusion in preclinical research, Lyon ,  
France,  
31 January 1994
- IVth congress of the International Society of Ocular Toxicology, Annecy, France, 9-  
13 October 1994
- Eurotox Meeting, Prague, 27-30 August 1995
- Eurotox Meeting, Alicante, 22-25 Septembre 1996

- Safety pharmacology and new methods in toxicity assessment, Lyon (France), 5 and 6 December 1996
- 6<sup>th</sup> European meeting of the international Society for the study of Xenobiotics, Gottenburg, Sweden , 30 June – 3 July 1997
- International Congress of Toxicology, Paris, 5-9 July 1998
- Endocrinology in Regulatory Toxicology, Lyon (France), 7-8 December 1998
- Accelerating preclinical development, Nice (France), 25-26 February 1999
- Eurotox meeting, Oslo, 27-30 June 1999
- Third World Congress on Alternatives and Animal Use in the Life Science, Bologna (Italy), 29 August – 2 September 1999 (invited speaker)
- 21st meeting of the American College of Toxicology, San Diego (USA), 12 – 15 November 2000
- Vision in Business meeting: Developments in QT prolongation and Safety Pharmacology, **Geneva** (Switzerland), 17 – 18 January 2001 (invited speaker)
- Vision in Business meeting Developments in QT prolongation and Safety Pharmacology, **Nice** (France), 26 – 27 June 2001 (invited speaker)
- Eurotox meeting, Istanbul, 13-16 September 2001
- Vision in Business meeting: Developments in QT prolongation and Safety Pharmacology, Barcelona, 19 – 21 March 2002 (invited speaker)
- Eurotox meeting, Budapest, 15-18 September 2002
- Vision in Business meeting: QT prolongation and Safety Pharmacology. Brussels, 12 & 13 December 2002.
- QT interval prolongation. Harmonisation of strategy to detect drug-induced proarrhythmias, Management forum, London 23-24 October 2003
- 24<sup>th</sup> meeting of the American College of Toxicology, Washington, 2-5 November 2003
- 10<sup>th</sup> International Congress of Toxicology, Tampere, Finland, 11-15 July 2004

- 15<sup>th</sup> Primate Symposium, Covance, Munster, Germany, 29-30 September 2004
- Latest trends and techniques in safety pharmacology IIR-Life Science symposium, London 27-28 October 2004
- Eurotox meeting, Cracovie, 11-14 september 2005
- IIR meeting: Cardiac Safety Assessment, Nice, 25-26 October 2005 (invited speaker)
- Sixteenth Primate Symposium, 13-14 June 2006, Covance, Munster, Germany (invited speaker)
- Eurotox meeting, Dubrovnik, 19-25 september 2006
- SOT meeting, Charlotte, USA, 25-29 March 2007
- Optimizing Paediatric Drug Development, Informa Life Science meeting, 13-14 June 2007, Madrid
- Cardiac Safety Strategies, Informa-Life Sciences meeting: 9-10<sup>th</sup> October 2007, Hamburg (invited speaker)
- GTCbio 3<sup>rd</sup> Modern Drug Discovery and Development Summit, **San Francisco**, CA 28-30<sup>th</sup> of November, 2007 (invited speaker)
- SOT meeting, Seattle, USA, March 2008
- EUROTOX meeting, Rhodos, Greece, 5-8<sup>th</sup> of October 2008
- Safety Pharmacology World, Healthnetwork meeting, London, 29-30<sup>th</sup> of October 2008.
- Belgian Society of Toxicology meeting, Brussels, 28 November 2008
- Exploratory Clinical Development World. Healthnetwork meeting, London 13-14 May 2009 (invited speaker)
- EUROTOX meeting, Dresden, Germany, 13-16 September 2009.
- Belgian Society of Toxicology meeting, Edegem (Antwerps), 25 November 2009
- SOT meeting, Salt Lake City, USA, March 2010
- 2<sup>nd</sup> Annual Drug Development Congress, Oxford Global Meeting, Montreux 9-10 June 2010 (invited speaker)

- EUROTOX meeting, Paris, 28-31 August 2011
- Belgian Society of Toxicology, 1st Annual Workshop on Non-Clinical Safety Assessment of Biopharmaceuticals, 26 October 2011 - Janssen Pharmaceutica, Beerse, Belgium
- Preclinical Safety Testing for New Drugs, Informa Life Science meeting, Berlin, 1&2 December 2011 (invited speaker)
- Belgian Society of Toxicology, 2nd Workshop: Non-Clinical Safety Assessment of Biopharmaceuticals November 22nd, 2012, UCB Pharma, Braine l'Alleud, Belgium
- EUROTOX meeting, Stockholm, 17-20 June 2012
- Preclinical Safety and Efficacy Testing, Informa Life Sciences meeting, Berlin 4-7 December 2012 (invited speaker)
- EUROTOX meeting, Interlaken, Switzerland, 1-4<sup>th</sup> September 2013
- Belgian Society of Toxicology 3rd Workshop on Non-Clinical Safety Assessment of Biopharmaceuticals - "Next generation therapies" March 12th, 2014, GSK Vaccines Wavre, Belgium
- EUROTOX meeting, Edinburgh, 7th - 10th September 2014
- 3<sup>rd</sup> International Summit on Toxicology & Applied Pharmacology, OMICS Group, Chicago 20 -23 October 2014 (invited speaker)
- EUROTOX meeting, Porto, Portugal, 13<sup>th</sup> -16<sup>th</sup> September 2015
- Belgian Society of Toxicology 4rd Workshop on Non-Clinical Safety Assessment of Biopharmaceuticals, 16<sup>th</sup> October 2015, Ablynx, Zwijnaarde (Gent), Belgium
- EUROTOX meeting Sevilla, Spain, 4<sup>th</sup> - 7<sup>th</sup> September 2016
- EUROTOX meeting, Bratislava, Slovakia, 10<sup>th</sup> – 13<sup>th</sup> September 2017
- EUROTOX meeting, Brussels, Belgium, 2<sup>nd</sup> – 5<sup>th</sup> September 2018

Curriculum vitae of G. Hanton, DVM, DABT

*Appendix 5*

## **PUBLICATIONS**

### THESIS

HANTON G.

**L'exploitation du gibier: données éthologiques.** Institut de Médecine Tropicale Prince Léopold, Antwerpen, 1977

### PUBLICATIONS

**HANTON G.** and JOLIVALT M.

Etude d'abcès intercrâniens chez le porc dans la région de Lubumbashi, Tropicultura, 1983 1, (2), 52-54.

**HANTON G.** and VERNAILLEN F.,

Adaptation de l'utilisation d'un réfractomètre à main pour la détermination des protéines du lactosérum.

Ann. Soc. Belge Méd. Trop., 1983, 63, 363-366.

**HANTON G.**, BOALE D.B., MATHIEU A., ISIGIDI B.K., JOLIVALT M.

Etude d'abcès chez le porc dans deux fermes des environs de Lubumbashi Tropicultura 1984, 2, (3), 82-86.

MWAMBA S., **HANTON G.** AND TALLEYRAND

Analyse du profil électrophorétique des protéines sériques chez les mères Bantou et leur enfant nouveau né.

Annales de la Société Belge de Médecine Tropicale, 1984, 64(1), 57-68

**HANTON G.** and WENCLEWSKI A.,

Fluctuations en fonction de l'âge des protéines sanguines chez six portées de porcelets, Rev. El. Méd. Vét. Pays Trop. 1985, 38 (2), 144-148.

**HANTON G.** and TUMBA K.N.,

Influence de l'âge, de la race et du sexe sur les protéines sanguines des bovins élevés en ranching au Shaba,

Rev. El. Méd. Vét. Pays Trop., 1985, 38 (2), 149-152.

**HANTON G.** and JOLIVALT M.,  
Castration du lapin mâle selon trois méthodes,  
Tropicultura, 1990, 8 (4)

THIRY E., BROCHIER B., **HANTON G.**, DERBOVEN, G. PASTORET P.-P.,  
Absence de séroconversion envers le virus de la rhinotrachéite infectieuse bovine  
(Bovine herpesvirus 1, BHV 1, virus IBR) chez des bovins indemnes d'IBR, soumis au  
test  
d'hypersensibilité retardée au BHV 1.  
Ann. Méd. Vét., 1983, 127, 477-479.

THIRY E., BROCHIER B., **HANTON G.**, DERBOVEN G., PASTORET P.-P.,  
Réactivation du virus de la rhinotrachéite infectieuse bovine (Bovine herpesvirus 1,  
BHV 1) non accompagnée de réexcrétion de particules infectieuses, après injection de  
dexaméthasone, chez des bovins soumis au test d'hypersensibilité retardée.  
Ann. Méd. Vét., 1983, 127, 377-381.

THIRY E., BROCHIER B., LANSIVAL B., **HANTON G.**, DERBOVEN G.,  
PASTORET P.-P., ANTOINE H.,  
Etude sur l'excrétion et la réexcrétion spontanée de deux souches vaccinales du virus de  
la rhinotrachéite infectieuse bovine (Bovine herpesvirus 1) par des veaux sains  
maintenus en station de sélection.  
Ann. Méd. Vét., 1983, 127, 625-634.

BROCHIER B., THIRY E., DERBOVEN G., **HANTON G.**, PASTORET P.-P.,  
Effect of homologous delayed hypersensitivity testing on specific and non specific  
lymphoblastic transformation in cattle latently infected with infectious bovine  
rhinotracheitis virus (Bovine herpesvirus 1, BHV 1).  
Ann. Rech. Vét. 1984, 15, 443-490.

**HANTON G.**, THIRY E., BROCHIER B., DERBOVEN G., PASTORET P.-P.,  
Development of specific antibodies mediating antibody-dependent cell-mediated  
cytotoxicity, after experimental infection of cattle with bovine herpesvirus 1 and  
subsequent viral reactivation.  
Vet. Microbiol., 1986, 11, 51-59.

PASTORET P.-P., THIRIART C., LOKEM A., COSTY F., SCHWERS A., **HANTON  
G.**,  
BROCHIER B.,  
La rage bovine  
Razernij bij het rund.  
Les élevages belges, 1984, N0 1, 6-10.

**HANTON G.**, BROCHIER B., THIRY E., DERBOVEN G., PASTORET P.-P.,  
Facteurs influençant la réaction de cytotoxicité à médiation cellulaire dépendante des anticorps envers les cellules infectées par le virus de la rhinotrachéite infectieuse bovine (Bovine herpesvirus 1, BHV 1).  
Ann. Méd. Vét. 1983, 127, 615-622.

**HANTON G.**, PASTORET P.-P.,  
La réaction de cytotoxicité à médiation cellulaire dépendante des anticorps.  
Ann. Rech. Vét. 1984, 15, 443-454.

**HANTON G.**, LONGEART L., LODOLA A.,  
Cardiotoxicity of hydralazine and minoxidil in the rat : influence of age.  
Research Commun. Chem. Pathol. Pharmacol., 1991, 71, 231-234.

PETERS C. J., **HANTON G.** :  
ECG rhythm disturbances in Beagle dogs.  
VI th International congress of toxicology, Rome, 1992. Toxicology Letters/Suppl, p225, 1992

**HANTON G.** AND PETERS C. J.:  
A comparison of manual and 24-hour ambulatory methods for gathering data on heart rate in the dog; the effect of hydralazine and minoxidil on baseline values.  
VI th International congress of toxicology, Rome, 1992. Toxicology Letters/Suppl, p226, 1992

BARNES P.E., **HANTON G.**, SAMUELS G.M.R. AND SHEPPERSON, N. B.:  
Candoxatril, an orally active inhibitor of neutral endopeptidase, increases survival of cardiomyopathic hamsters.  
XIV th congress of the European Society of Cardiology, Barcelona, Spain, 1992.  
European Heart J. 13/abstr suppl. p 240, 1992

CARLEER, J., DEBRUYNE, E., GARNY V., **HANTON G.**, MCLAIN D. E. AND ROBA J.:  
Acute toxicological evaluation of rat Atriopeptin III HCl.  
J. Amer. Coll. Tox. Part B: acute toxicity data, 11(6), 717, 1992

**HANTON G.**, BARNES P., SHEPPERSON N. B. AND WALLEY, R.:  
Effects of hydrochlorothiazide and captopril on the survival and heart weight of cardiomyopathic hamsters.  
Research Commun. Chem. Pathol. Pharmacol. 81(2), 159-166, 1993

**HANTON G. AND LENET J.-L.:**

Administration of 300 mg/kg of Fenoldopam mesylate in diet to rats for 5 days induces arteritis.

32th annual meeting of SOT, New Orleans, 1993. The Toxicologist 13(1), 1993

**LENET J. -L., HANTON G., ROCHEREAU C. AND LEBLANC B.:**

Induction of pyelonephritis in rats by short term administration of a high dose of Fenoldopam mesylate.

Annual Meeting of the American College of Veterinary Pathology, San Antonio, 1993.

Vet. Pathol. 30, 445, 1993

**HANTON G. LENET J.-L. AND LEBLANC B.:**

Characterization of the arteritis induced by infusion of rats with UK-61,260 for 24-hours. A comparison with the arteritis induced by Fenoldopam mesylate.

Arch. Toxicol. 69, 698-704, 1995

**HANTON G., TOURNADE H., GEFFRAY B AND LODOLA A.:**

Echocardiography, a non invasive method for the investigation of left ventricle function of the dog.

I. Method, reference values and comparison of data for 2 strains of Beagle dogs.

Eurotox Meeting, Prague, 1995. Toxicology Letters. Suppl 1, 39, 1995

**HANTON G. AND LODOLA A.:**

Echocardiography, a non invasive method for the investigation of left ventricle function of the dog.

II. Minoxidil induces a marked cardiac stimulation.

Eurotox Meeting, Prague, 1995. Toxicology Letters. Suppl 1, 39, 1995

**NAHAS K., RABEMAMPIANINA Y., HANTON G., LODOLA A.**

ECG of the beagle dog: distribution and stability of the T-wave polarities and in house reference values for selected parameters.

Eurotox Meeting, Prague, 1995. Toxicology Letters. Suppl 1, 59, 1995

**HANTON G.**

Effects of quinidine on echocardiographic parameters in dogs after oral administration

Eurotox Meeting, Alicante, 1996. Toxicology Letters Suppl 1/108, 1996

**HANTON G. and GEFFRAY B.**

Echocardiography a non invasive method for the investigation of left ventricle function of the dog: reference values for M-mode parameters, effect of sex, body weight and heart rate and correlation between parameters.

Eurotox Meeting, Alicante, 1996. Toxicology Letters Suppl 1/108, 1996



**HANTON G., GEFFRAY B., LODOLA A.**

Echocardiography, a non-invasive method for the investigation of heart morphology and function in laboratory dogs: 1. Establishment of the method and reference values for M-mode parameters.

Laboratory animals, 32, 173-182, 1998

**HANTON G. and LODOLA A.**

Echocardiography, a non-invasive method for the investigation of heart morphology and function in laboratory dogs: 2. Effects of minoxidil and quinidine on the left ventricle function

Laboratory animals, 32, 183-190, 1998

**NAHAS K., HANTON G., LODOLA A., RABEMAMPIANINA Y., SACRE-SALEM B.**

Type B ventricular preexcitation with abnormal contraction of the ventricular septum in a dog.

Contemporary Topics in Laboratory Animal Sciences, 37 (5), 61-64, 1998

**LEBLANC B. JEZEQUEL S. DAVIES T. HANTON G. TARADACH C.**

Binding of drugs to eye melanin is not predictive of ocular toxicity.

Regulatory Toxicology & Pharmacology. 28 (2), 124-32, 1998 .

**HANTON G; LE NET JL; PROVOST JP; CHARUEL C; CLAYTON TA; ABBOTT D; EVERETT JR; LINDON JC; NICHOLSON JK; SWANSON AG**

Biochemistry, <sup>1</sup>H nuclear magnetic resonance (NMR) SPECTROSCOPY , histopathology and pattern recognition in assessing acute hepatotoxicity of allyl formate and chlorpromazine.

Toxicology Letters, Suppl 1/109, 101, 1999

**HANTON G; LONGEART L; ROMEIKE A; COMBY P; PROVOST JP; BANEUX P.**

Sulfamethoxazole 4-week oral toxicity studies in FVB and XPA transgenic mice

Toxicology Letters, Suppl 1/109, 51, 1999.

**HANTON G, BANEUX PJR**

Echocardiography in laboratory dogs: a method of refinement for the assessment of cardiovascular toxicology. Example of minoxidil and quinidine.

In: *Progress in the Reduction, Refinement and Replacement of Animal Experimentation.*

M. Balls, A.-M. van Zeller and M. E. Halder editors, Elsevier, Amsterdam, 2000, pp 1175-1186

**G.HANTON, J.-L. LE NET and D. ABBOTT**

Cardiovascular toxicity of UK-57,831, a PDE III inhibitor, in rats.

Poster at the 21st meeting of the American College of Toxicology, 2000

Internat. J. Toxicol., 19, 27-28, 2000

**G.HANTON**, J.-L. LE NET and D. ABBOTT  
Cardiovascular toxicity of UK-61,260, a PDE III inhibitor, in dogs  
Poster at the 21st meeting of the American College of Toxicology, 2000  
Internat. J. Toxicol., 19, 28, 2000

**HANTON G**, NAHAS K , PRIOU C, RABEMAMPIANINA Y., BANEUX P  
The QT interval in the dog ECG. Importance in preclinical toxicology and relationship to heart rate.  
Toxicol. Method., 11, 21-40, 2001

**HANTON G.**, NAHAS K., RABEMAMPIANINA Y.,  
Investigating the relationship between QT and heart rate in a large number of dogs for the establishment of a QTc formula.  
Eurotox Meeting, Istanbul, 2001. Toxicol. Letters, 123, suppl.1, 32, 2001

GAUTIER, M., PETINAY H., MAUCLAIR N., BONNET P., **HANTON G.**  
Establishment of Doppler echocardiography in dogs for the investigation of cardiovascular toxicity  
Eurotox Meeting, Istanbul, 2001. Toxicol. Letters, 123, suppl.1, 31, 2001

PAWLOWSKI V., LAWTON M., GARCIA-ALLEN C., **HANTON G.**, BIAGINI, C.,  
BLANCK O., CHARUEL C., CHEVALIER S.  
Identification of toxicity biomarkers in rat liver (1)  
Eurotox Meeting, Istanbul, 2001. Toxicol. Letters, 123, suppl.1, 29, 2001

**HANTON G.**, LE NET J.-L., PROVOST J.P.  
Kinetic and dose-relationship of the hepatotoxic effects of paracetamol in rats  
Eurotox Meeting, Budapest, 2002. Toxicol. Letters, 135, suppl.1, 130, 2002

PAWLOWSKI V., LAWTON M., GARCIA-ALLEN C., **HANTON G.**, BIAGINI, C.,  
CHARUEL C., CHEVALIER S.  
Identification of toxicity biomarkers in rat liver (2)  
Eurotox Meeting, Budapest, 2002. Toxicol. Letters, 135, suppl.1, 129, 2002

CLAYTON T.A., LINDON J.C., EVERETT J.R., CHARUEL C., **HANTON G.**, LE  
NET J.-L., PROVOST J.-P., NICHOLSON J.K.  
An hypothesis for a mechanism underlying hepatotoxin-induced hypercreatinuria.  
Arch. Toxicol, 77 (4), 208-217, 2003

PROVOST J.-P., **HANTON G.**, LE NET J.-L.  
Plasma triglycerides : an overlooked biomarker of hepatotoxicity in the rat  
Comp. Clin. Path., 12, 95-101, 2003

**HANTON G.**, GAUTIER M., BONNET. P.

Using M -mode and Doppler echocardiography to investigate the cardiotoxicity of minoxidil in Beagle dogs.

Arch. Toxicol, 78, 40-48, 2004

ABBOTT D., COMBY P., CHARUEL C., GRAEPEL P., **HANTON G.**, LEBLANC B., LODOLA A., LONGEART L., PAULUS G., PETERS C., STADLER J.

Preclinical safety profile of sildenafil

Int. J. Impotence Res., 1, 1-7, 2004

PAWLOWSKI, V., DAGUES N., GUIGNON G., **HANTON G.**, CHEVALIER S.

Altered gene expression in rat mesenteric arteries following in vivo exposure to a phosphodiesterase 4 inhibitor.

Poster at the 10<sup>th</sup> international Congress of Toxicology

Toxicol. Appl. Pharmacol., 197, 265-266, 2004

WILLIAMS D. P, GARCIA-ALLAN C., **HANTON G**, LENET J. L, PROVOST J. P., BRAIN P, WALSH R., JOHNSTON G. I., SMITH D. A, PARK B. K

Time Course Toxicogenomic Profiles in CD-1 Mice after Nontoxic and Nonlethal Hepatotoxic Paracetamol Administration *Chem. Res. Toxicol.*, ASAP Article Web

*Release Date: October 28, 2004*

CLAYTON T.A., LINDON J.C., EVERETT J.R., CHARUEL C., **HANTON G.**, LE NET J.-L., PROVOST J.-P., NICHOLSON J.K.

Hepatotoxin-induced hypercreatinemia and hypercreatinuria: their relationship to one another, to liver damage and to weakened nutritional status.

Archiv. of Toxicol., 78, 86-96. 2004

DE CRESCENZO V, VANDIER C, GIRARDIN C, LE NET JL, **HANTON G**, BONNET P

24-hour exposure to fenoldopam in vitro induced decrease in 5-HT contraction of isolated rat mesenteric artery.

Research Commun. Chem. Pathol. Pharmacol. 9, 69-80, 2004

**HANTON G.**, GAUTIER M., HERBET A., BONNET P.

Effect of milrinone on echocardiographic parameters after single dose in Beagle dogs and relationship with drug-induced cardiotoxicity

Toxicol Letters, 155, 307-317, 2005

BOISSIERE J, GAUTIER M, MACHET M-C, **HANTON G**, BONNET P, EDER V.  
Doppler tissue imaging in assessment of pulmonary hypertension-induced right ventricle dysfunction

Am. J. Physiol: Heart Circ. Physiol., 269, H2450-H2455, 2005

YVON A., RABEMAMPIANINA Y., PROVOST J.P., HANTON G.  
Effects of hypokaliemia on the QT interval in dogs.  
Poster presented at SOT 2005

ROCHEFORT G., EDER V., GAUTIER M., BONNET P., **HANTON G.**  
Establishment of echocardiography in the marmoset  
Poster presented at EUROTOX 2005,  
Toxicol Lett., 158, suppl 1, S236-237, 2005

**HANTON G.**, BONNET P., LOIRET C. BAZIN G.  
Electrocardiographic effects of high intravenous doses of astemizole in dogs  
Poster presented at EUROTOX 2005,  
Toxicol Lett., 158, suppl 1, S53, 2005

**HANTON G.**, BONNET P., BAZIN G., LOIRET C.  
Electrocardiographic effects of bethanechol and methacholine in dogs  
Poster presented at EUROTOX 2005,  
Toxicol Lett., 158, suppl 1, S53-54, 2005

SERRIERE S., TRANQUART F., **HANTON G.**  
Sonographic exploration of the mesenteric and renal arterial blood flows in adult rats  
Poster presented at EUROTOX 2005,  
Toxicol Lett., 158, suppl 1, S237, 2005

**HANTON G** AND TILBURY L.  
Cardiac Safety Strategy: Meeting highlights  
Expert Opin Drug Saf., 5, 329-333, 2006

**HANTON G., RABEMAMPIANINA Y**  
The electrocardiogram of the Beagle dog: reference values and effect of sex, genetic strain, body position and heart rate. *Laboratory Animals*, 40, 123-136.  
Lab. Anim. 40, 123-136, 2006

CLAYTON A, LINDON JC, CLOAREC O, ANTTI H, CHARUEL C, **HANTON G**,  
PROVOST JP, LE NET JL, BAKER D, WALLEY RJ, EVERETT JR NICHOLSON  
JK.  
Pharmaco-metabonomic phenotyping and personalized drug treatment  
Nature 440, 1073-1077, 2006

ROCHEFORT G., LEMAIRE M. C., EDER V., **HANTON G.**, HYVELIN J.M., BONNET P., ANTIER D.

Dexfenfluramine does not worsen but moderates progression of pulmonary hypertension in normotensive rats exposed to chronic hypoxia.

[Eur J Pharmacol.](#), [550 \(1-3\):149-54](#), 2006

**HANTON G.**, EDER V. BONNET P., ROCHEFORT G.Y.

Echocardiography in marmosets: a non-invasive method for the assessment of cardiovascular toxicology and pharmacology.

In: GF Weinbauer, F Vogel (eds)

Novel approaches towards primate toxicology

Waxmann Publishing Co. Münster/New York, 2006

SERRIÈRE S., TRANQUART F., **HANTON G.**

Echographic recording of uterine, umbilical and fetal cerebral blood flow in pregnant rats.

Poster presented at EUROTOX 2006

Toxicol Letters, 164S, S306, 2006

**HANTON G.**, BONNET P., LOIRET C., BAZIN G.

Effects of subcutaneous escalating doses of isoproterenol on the ECG of the dog

Poster presented at EUROTOX 2006

Toxicol Letters, 164S, S304, 2006

**HANTON G.**, BONNET P., LOIRET C., BAZIN G.

Effects of a single subcutaneous high dose of isoproterenol on the ECG of the dog

Poster presented at EUROTOX 2006

Toxicol Letters, 164S, S305, 2006

DAGUES N., PAWLOWSKI V., LEDIEU D., SOBRY C., **HANTON G.**, FRESLON JL, CHEVALIER S.

Molecular changes preceding inflammatory and vascular lesions induced by a phosphodiesterase 4 inhibitor in rats

Poster presented at EUROTOX 2006

Toxicol Letters, 164S, S294, 2006

YAP I.K.S., T., CLAYTON T.A., TANG H., EVERETT J.R., **HANTON G.**, PROVOST J.P., LE NET J.L., CHARUEL C., LINDON J.C., NICHOLSON J.R.

An Integrated Metabonomic Approach To Describe Temporal

Metabolic Disregulation Induced in the Rat by the Model Hepatotoxin Allyl Formate

Journal of Proteome Research, 5, 2675- 2684, 2006

**HANTON G., YVON A., PROVOST J.-P, RACAUD A., DOUBOVETZKY M**  
Quantitative relationship between plasma potassium levels and QT interval in dogs  
Lab. Anim, 41 (2), 204-217, 2007

CLAYTON A.T., LINDON J.C., EVERETT J.R., CHARUEL C., **HANTON G.**, LE  
NET J.L., PROVOST J.P., NICHOLSON J.K..  
Hepatotoxin-induced hypertyrosinemia and its toxicological significance  
Arch. Toxicol, 81(3), 201-210, 2007

GAUTIER M., LE NET J.L., **HANTON G.**, EDER V., BONNET P.  
Continuous inhalation of carbon monoxide induces right ventricle  
ischemia and dysfunction in rat with hypoxic pulmonary hypertension.  
Am. J. Physiol.: Heart Circ Physiol., 293(2), H1046-52, 2007

DAGUES N., PAWLOWSKI V., GUIGNON G., LEDIEU D., SOBRY C., **HANTON  
G.**, FRESLON J.L., CHEVALIER S.  
Altered gene expression in rat mesenteric tissue following in vivo exposure to a  
phosphodiesterase 4 Inhibitor  
Tox. Appl. Pharmacol., 218 (1), 52-63, 2007

**HANTON G.**  
Preclinical cardiac safety assessment of drugs.  
Drug in Research and Development, 8 (4), 213-228, 2007.

DAGUES N, PAWLOWSKI V, SOBR C, **HANTON G**, BORDE F,  
SOLER S, FRESLON J-L, CHEVALIER S.  
Investigation of the molecular mechanisms preceding PDE4 inhibitor-induced vasculopathy in  
rats: TIMP-1, a potential predictive biomarker  
Toxicol. Sci, 100 (1), 238–247 2007

**HANTON G, BONNET P AND LOIRET C**  
In vivo assessment of temporal and transmural variability of cardiac repolarisation as a tool for  
evaluating pro-arrhythmic risk  
Poster presented at SOT 2007  
The Toxicologist, 96 (1), 76, 2007

STEIDL-NICHOLS JV, **HANTON G**, LEANEY J, LEISHMAN D, MCHARG A,  
WALLIS R.  
A quantitative analysis of proarrhythmia detection in the SCREENIT isolated heart  
model.  
J. Pharmacol. Toxicol. Meth. 57, 9–22, 2008

**HANTON G., SOBRY C., PROVOST J.P., LEDIEU D., DAGUES N., PAWLOWSKY V., COMBY P., CHEVALIER S.**

Characterisation of the vascular and inflammatory lesions induced by the PDE4 inhibitor CI-1044 in the dog.

Tox Lett, 179, 15-22, 2008

**HANTON G., YVON A., RACAUD A.**

Temporal variability of QT interval and changes in T wave morphology in dogs as markers of the clinical risk of drug-induced proarrhythmia

J. Pharmacol Toxicol Meth., 57, 194-201, 2008

**HANTON G., SOBRY C., DAGUES N., ROCHEFORT G., EDER V., BONNET P**

Cardiovascular toxicity of minoxidil in the marmoset

Tox Lett., 180, 157-165, 2008

**HANTON, G., EDER V., ROCHEFORT G., BONNET P., HYVELIN JM**

Echocardiography, a non-invasive method for the assessment of cardiac function and morphology in pre-clinical drug toxicology and safety pharmacology.

Exp. Opin Metabol. Toxicol., 4 (6), 681-96, 2008

**DESBUARD N., ANTIER D., ROCHEFORT G., APFELDORFER C.S., SCHENCK E.,**

**HANTON G., HYVELIN J.-M.**

Dexfenfluramine discontinuous treatment does not worsen hypoxia-induced pulmonary vascular remodelling but activates RhoA/ROCK pathway: consequences on pulmonary hypertension.

Eur. J. Pharmacol., 602(2-3), 355-363, 2009

**DE JONGHE S., LAMMENS L., RAOOF A., STEEMANS K., BROECKAERT F.,**

**VERBEECK J., VAN GOETHEM F., HANTON G.**

Lethal rhinitis/sinusitis in rodents by aspiration of formulation in gavage studies: importance of evaluation of the nose.

Poster presented at the 6<sup>th</sup> European Congress of Toxicologic Pathology, 2009 (Proceedings. p. 67)

**HANTON G., DE JONGHE S., ROOSEN W. LAMMENS L., VYNCKIER A., and**

**MARTENS M.**

Analysis of clinical relevance of cardiac lesions seen in a high dose rat from a toxicity study

Poster presented at the 12<sup>th</sup> International Congress of Toxicology 2010. Tox Letters, 196, (Suppl.)

**HANTON G, NAHAS K**

ECG in non-rodent toxicity studies: how can it be real science?

Poster presented at the 47<sup>th</sup> EUROTOX meeting 2011. Tox Letters, 205, (Suppl.), S203

**HANTON G, DETALLE L, PRIEM S, BOUCHE M-P, DEPLA E, BAUMEISTER J**

ALX-0171 toxicity study in RSV-infected cotton rats: Safety and therapeutic potential.

Poster presented at the 48<sup>th</sup> EUROTOX meeting 2012. Tox Letters, 211, (Suppl.), S43

**HANTON G** (2014). Echocardiography a Non-Invasive Method for Investigating Preclinical Drug Toxicity and Safety. J Clin Toxicol 2014, 4(3)

**HANTON G** (2014). Improvement of QT analysis for Evaluating the Proarrhythmic Risk of Drug: The Importance of Spatial and Temporal Dispersion of Repolarization. J Clin Toxicol 2014, 4(3)

## **ORAL PRESENTATIONS as invited speaker**

*Echocardiography in laboratory dogs: a method of refinement for the assessment of cardiovascular toxicology. Example of minoxidil and quinidine*

Third World Congress on Alternatives and Animal Use in the Life Science,  
**Bologna** , 29 August – 2 September 1999

*Investigating the relationship between QT and heart rate in a large number of dogs for the establishment of a QTc formula.*

Vision in Business meeting: Developments in QT prolongation and Safety Pharmacology, **Geneva**, 17 – 18 January 2001

*Echocardiography in laboratory dogs: a non-invasive method for the assessment of cardiovascular effects of drugs in toxicology and safety pharmacology .*

Vision in Business meeting Developments in QT prolongation and Safety Pharmacology, **Nice**, 26 - 27 June 2001

*The use of Doppler echocardiography in the investigation of drug-induced cardiovascular toxicity*

Vision in Business meeting: Developments in QT prolongation and Safety Pharmacology, **Barcelona**, 19 – 21 March 2002

*In vivo assessment of temporal and transmural variability of cardiac repolarization in dog as a tool for evaluating pro-arrhythmic risk*

Informa-Life Sciences meeting: Cardiac Safety Assessment, **Nice**, 25-26 October 2005

*Echocardiography in marmosets: a non-invasive method for the assessment of cardiovascular toxicology and pharmacology.*

Symposium Covance, 13 June 2006, **Munster**, Germany



*Echocardiography in marmosets: a non-invasive method for the assessment of cardiovascular toxicology and safety pharmacology in a new species of non-human primates*

Informa-Life Sciences meeting: Cardiac Safety Strategies, **Hamburg**, Germany, 9-10<sup>th</sup> October 2007

*Analysis of ECG data in dog toxicity studies, with a special focus on QT interval*

GTCbio 3<sup>rd</sup> Modern Drug Discovery and Development Summit, **San Francisco**, CA. 28-30<sup>th</sup> of November, 2007

*Predictive pre-clinical cardiac safety data*

Exploratory Clinical Development World. Healthnetwork meeting, **London** 13-14 May 2009

*The use of echocardiography in preclinical toxicology*

2<sup>nd</sup> Annual Drug Development Congress, Oxford Global Meeting, **Montreux** 9-10 June 2010

*Exploring the value of ECG in regulatory toxicity studies in comparison to safety pharmacology*

Preclinical Safety Testing for New Drugs, Informa Life Science meeting, **Berlin**, 1&2 December 2011

*Pre-clinical assessment of drug cardiac safety and toxicity*

Preclinical Safety and Efficacy Testing, Informa Life Sciences meeting, **Berlin** 4-7 December 2012

*In vivo assessment of temporal and transmural variability of cardiac repolarization in the dog, as a tool for evaluating pro-arrhythmic risk*

3<sup>rd</sup> International Summit on Toxicology & Applied Pharmacology, OMICS Group, **Chicago** 20 -23 October 2014

*Echocardiography a non invasive method for investigating preclinical drug toxicity and safety*

3<sup>rd</sup> International Summit on Toxicology & Applied Pharmacology, OMICS Group, **Chicago** 20 -23 October 2014