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**POLISH ACADEMY OF SCIENCE, NATIONAL REPRESENTATIVE
TO ICLAS, MEMBER OF ICLAS GOVERNING BOARD**

**PROTECTION OF ANIMAL RESEARCH
SUBJECTS**

WARSAW, June 2005

**NOWHERE IS THE IMPROVEMENT
OF ANIMAL'S PHYSICAL AND SOCIAL ENVIRONMENT
MORE IMPORTANT THAN AT THE LABORATORY LEVEL**

Dr Donald Boisvert, CCAC

HISTORY OF INBRED STRAINS OF ANIMALS CLOSELY LINKED WITH THE DEVELOPMENT OF RESEARCH IN CANCER AND IMMUNOLOGY

1903-1908	TRANSPLANTABLE TUMORS DISCOVERED IN MICE (Jonson, Loeb)
1914-1916	GENETIC THEORY OF TUMOR TRANSPLANTATION FORMULATED AND CONFIRMED EXPERIMENTALLY (Little and Tyzzer)
1920-1930	MANY OF THE MOST WIDELY USED MOUSE AND RAT INBRED STRAINS DEVELOPED BY THIS TIME,
1922	LAWS OF INBREEDING AND 'COEFFICIENT OF INBREEDING' FORMULATED BY WRIGHT
1929	THE JACKSON LABORATORY FOUNDED BY Little
1933	THE "MILK AGENT" - THE MAMMARY TUMOR IN MICE
1936	FOUR BLOOD GROUP ANTIGENS (incl. Antigen II) DISCOVERED BY GORER AND ITS ASSOCIATION WITH TUMOR RESISTANCE
1948	THEORY OF CONGENIC LINES FORMULATED AND THE TERM "Histocompatibility" INTRODUCED BY Snell, ANTIGEN II LOCUS NAMED H-2 BY Gorer, Snell and others,
1954	FIRST BIBLIOGRAPHY LISTING OF INBRED STRAIN OF MICE BY Joan Staats; 46% of papers refer to CANCER RESEARCH, less than 4% to IMMUNOLOGY
1960	MECHANISM OF IMMUNOLOGICAL RESPONSE TO TRANSPLANTATION ANTIGENS, IMMUNOLOGICAL TOLERANCE, Burnett, Medawar
1980	RECOGNITION OF THE MAJOR HISTOCOMPATIBILITY COMPLEX - FUNDAMENTAL DISCOVERY FOR SUCCESSFUL AND LONG SURVIVAL OF TISSUE AND ORGAN TRANSPLANTATION IN RECIPIENTS Dausset, Snell, Benacerraf

SCIENTIFIC AND ETHICAL JUSTIFICATION:

***A RESEARCH PROJECT INVOLVING ANIMAL SUBJECTS SHOULD TAKE PLACE ONLY WHEN IT CAN BE SHOWN:**

***THE AIM OF THE PROJECT IS WORTHWHILE,**

***THE DESIGN OF THE PROJECT PROVIDE STRONG POSSIBILITY THAT IT WILL ACHIEVE THE AIM,**

***THE AIM COULD NOT BE ACHIEVED USING MORALLY MORE ACCEPTABLE AND SCIENTIFICALLY NO LESS ACCEPTABLE ALTERNATIVE SUBJECTS AND PROCEDURES,**

***THE LIKELY BENEFITS OF THE PROJECT ARE SUBSTANTIALLY ENOUGH IN RELETATION TO THE SUFFERING LIKELY TO BE CAUSED TO THE ANIMALS USED: EVALUATION OF THE RESEARCH BENEFIT AGAINST THE COST TO THE ANIMAL**

Taken from Smith J.A.&Boyed K.M. edit. 1991. Contemporary Topics in Laboratory animal Science,

INTERNATIONAL GUIDING PRINCIPLES FOR BIOMEDICAL RESEARCH INVOLVING ANIMALS :

***ADVANCEMENT OF BIOLOGICAL KNOWLEDGE AND THE DEVELOPMENT OF IMPROVED MEANS FOR THE PROTECTION OF THE HEALTH AND WELL-BEING BOTH OF MAN AND ANIMALS REQUIRE RECOURSE TO THE EXPERIMENTATION ON INTACT LIVE ANIMALS OF WIDE VARIETY OF SPECIES,**

***METHODS SUCH AS MATHEMATICAL MODELS, COMPUTER SIMULATION AND IN VITRO BIOLOGICAL SYSTEMS SHOULD BE USED WHEREVER APPROPRIATE,**

***THE ANIMALS SELECTED FOR AN EXPERIMENT SHOULD BE OF AN APPROPRIATE SPECIES AND QUALITY, AND THE MINIMUM NUMBER REQUIRED, TO OBTAIN SCIENTIFICALLY VALID RESULTS,**

***INVESTIGATORS AND OTHER PERSONNEL SHOULD NEVER FAIL TO TREAT ANIMALS AS SENTIENT, AND SHOULD REGARD THEIR PROPER CARE AND USE AND THE AVOIDANCE OR MINIMISATION OF DISCOMFORT, DISTRESS, OR PAIN AS ETHICAL IMPERATIVES,**

Taken from: HOWARD-JONES 1985

A CIOMS ethical code for animal experimentation, WHO Chronicle 39-51-56,

RESEARCHERS ARE ETHICALLY RESPONSIBLE AS INDIVIDUALS FOR THE EXPERIMENTS THEY CONDUCT ON ANIMALS,

RESEARCHERS ARE ETHICALLY BOUND TO MINIMISE THE SEVERITY OF EVERY EXPERIMENT,

RESEARCHERS' RESPONSIBILITY CONTINUE THROUGHOUT THE PERIOD OF ANIMAL USE AND BEYOND,

RESEARCHERS ARE RESPONSIBLE FOR PROVIDING TRAINING AND ADVICE TO ALL NOVICES, INCLUDING UNEXPERIENCED SCIENTISTS, TECHNICIANS AND ANIMAL CARE PERSONNEL,

HUMAN-ANIMAL DISCONTINUITIES :

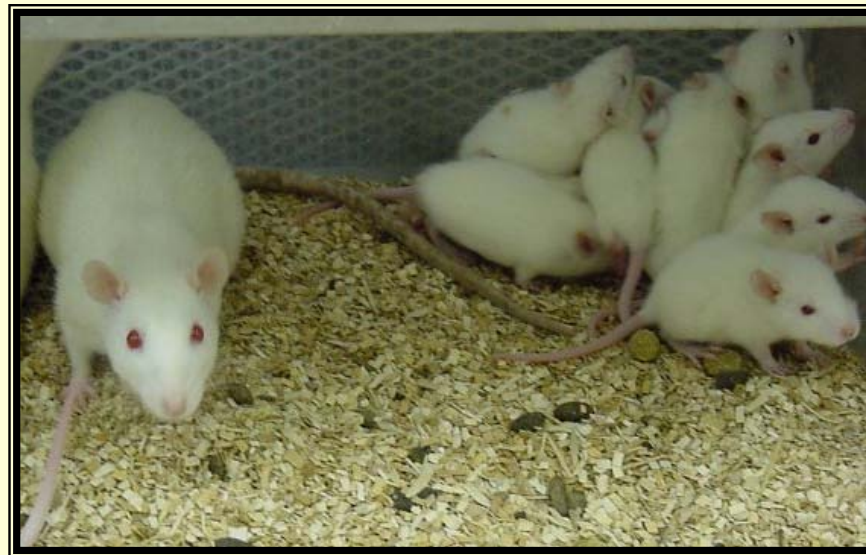
HUMANKIND IS AT PRESENT UNABLE TO COMMUNICATE DIRECTLY WITH OTHER ANIMALS OR TO UNDERSTAND FULLY HOW THEIR SENSORY WORLD IS AFFECTED BY WHAT WE DO AROUND THEM, OR TO THEM, AND HOW THEY INTERPRET AND REACT TO THESE INTRUSIONS,

WE NECESSARY USE OUR HUMAN EXPERIENCE TO ANTICIPATE THE IPACT OF OUR INTRUSIONS ON OTHER ANIMALS, AND DESCRIBE THE IMPACT IN TERMS WHICH ARE MEANGFUL TO US BUT WHICH MAY HAVE POOR RELEVANCE TO THE ANIMALS' ACTUAL PERCEPTIONS, SENSATIONS OR CONCERNS.

Taken from: MELLOR DJ and REID CSW Massey University, Palmerston North, New Zealand

Introduction

- ICLAS is an international non-governmental and non-profit scientific organization.
- ICLAS exists to promote high standards of animal care and use in education, research, testing and diagnosis, to promote good science and foster humane practices in scientific research.



History

- International Council for Laboratory Animal Science (ICLAS)
 - established in 1956 (ICLA)
- ICLAS was created through an initiative of:
 - the United Nations Educational, Scientific and Cultural Organizations (UNESCO)
 - the Council for International Organizations of Medical Sciences (CIOMS)
 - the International Union of Biological Sciences (IUBS)
- Collaboration with the World Health Organization since 1961

ICLAS Mission and Aims

- MISSION:
 - ICLAS advances human and animal health by promoting the ethical care and use of animals in research worldwide



ICLAS Aims

- ❖ To promote and coordinate the development of laboratory animal science throughout the world and as a matter of priority in developing countries.
- ❖ To promote international collaboration in laboratory animal science.
- ❖ To promote quality definition and monitoring of laboratory animals.
- ❖ To collect and disseminate information on laboratory animal science.
- ❖ To promote world-wide harmonization in the care and use of laboratory animals.
- ❖ To promote the humane use of animals in research through recognition of ethical principles and scientific responsibilities.
- ❖ To promote the “Three Rs” tenet of Russell and Burch.

ICLAS Membership

❖ ICLAS is composed of four (4) categories of members:

❖ National	30
❖ Scientific/Union	37
❖ Associate	34
❖ Honorary	9

National Members

- Argentina
- Austria
- Belgium
- Canada
- China
- Costa Rica
- Cuba
- Cyprus
- Denmark
- Finland
- Germany
- Hong Kong
- Hungary
- India
- Iran
- Ireland
- Israel
- Italy
- Japan
- Netherlands
- Norway
- Poland
- South Africa
- Spain
- Sweden
- Thailand
- UK
- USA
- Mexico
- Tunisia

Scientific Members

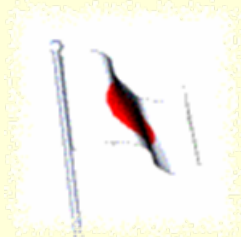
- AALAS/USA
- ANZLAS/ Australia-New Zealand
- AGS/USA
- CALAS-ACSAL/Canada
- CALAS/China
- GV-SOLAS/Germany
- JALAS/Japan
- KALAS/Korea
- LASA/U.K.
- NVP/Netherland
- Scand-LAS/Sweden
- SEEA/Spain
- AFSTAL/France
- CSLAS/Taiwan
- SECAL/Spain
- FinLAS/Finland
- BCLAS/Belgium
- Balt-LAS/Latvia
- ACCMAL/Central America
- AAALAC, ACLAM/USA
- CSLAS/Croatia
- KRIBB/Korea
- JSP/Japan
- SGV/Switzerland
- AACyTAL/Argentina
- AMCAL/Mexico
- COBEA/Brasil
- BALAS/Bengladesh
- TALAS/Thailand

Union Members

- Int. Union of Biological Sciences (IUBS) France
- Int. Union of Immunological Societies (IUIS)
Netherlands
- Int. Union of Nutritional Sciences (IUNS)
Netherlands
- Int. Union of Pharmacology (IUPHAR) Germany
- Int. Union of Physiological Sciences (IUPS) USA
- Int. Union of Toxicology (IUTOX) Switzerland

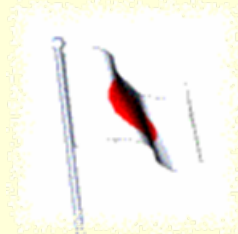
ICLAS Governing Board

- **Executive Committee (2003-2007)**
 - President: Gilles Demers (Canada)
 - Vice-President: Norikazu Tamaoki (Japan)
 - Secretary-General: Patri Vergara (Spain)
 - Treasurer: Cecilia Carbone (Argentina)



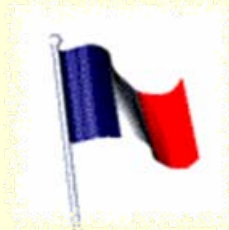
ICLAS Governing Board

- **National Members (2003-2007)**
 - **Gemma Perretta (Italy)**
 - **Czeslaw Radzikowski (Poland)**
 - **Norikazu Tamaoki (Japan)**
 - **Guy De Vroey (Belgium)**



ICLAS Governing Board

- **Scientific/Union Members (2003-2007)**
 - Denna Benn (CALAS, Canada)
 - Mel Dennis (AALAS, USA)
 - Guy Dubreuil (AFSTAL, France)
 - J.R. Haywood (IUPHAR, USA)
 - Rafael Hernandez (ACCMAL, Mexico)
 - Toshio Itoh (JALAS, Japan)



ICLAS Strategic Plan

- According to its mission, ICLAS strives:
 - to act as a world-wide resource for laboratory animal science knowledge;
 - to be the acknowledged advocate for the advancement of laboratory animal science in developing countries and regions; and
 - to serve as a premier source of laboratory animal science guidelines and standards, and as general laboratory animal welfare information center.

ICLAS Programs

- Scientific Meetings
- ICLAS Regional Program
- Communication
- ICLAS Initiatives



Conclusion

- ❖ In the context of the ILAR International Workshop on Development of Science-Based Guidelines for Laboratory Animal Care, ICLAS could play an important role because of:
 - ❖ its role as an international umbrella organization
 - ❖ the worldwide presence of its membership



Conclusion

- ❖ The worldwide impact of the ICLAS Programs to ensure diffusion of good science:
 - ❖ ICLAS Meetings
 - ❖ ICLAS Regional Program
 - ❖ ICLAS Communication Program
 - ❖ ICLAS Initiatives
- ❖ The ICLAS Policy regarding harmonization vs. standardization

IMPLEMENTATION OF ICLAS PHILOSOPHY AND PRINCIPLES, AIMING TO PROTECT THE ANIMAL EXPERIMENTATION

COMMISSION ON BIOLOGY OF EXPERIMENTAL ANIMALS, POLISH ACADEMY OF SCIENCES, DEPARTMENT OF MEDICAL SCIENCES,

NATIONAL AND 18 LOCAL ETHICS COMMITTEES FOR USE OF ANIMALS IN BIOMEDICAL RESEARCH, APPOINTED IN 2000 BY THE MINISTER OF EDUCATION AND INFORMATISATION - EVALUATION OF RESEARCH PROJECTS BEFORE THEY WILL BE ACCEPTED FOR FINANCIAL SUPPORT,

ICLAS REFERENCE CENTER FOR BIOMEDICAL RESEARCH IN IMMUNONCOLOGY DESIGNATED IN 2002 - THE DEPARTMENT OF GENETICS AND LABORATORY OF ANIMAL BREEDING, THE MARIA SKŁODOWSKA-CURIE CANCER CENTER IN WARSAW

SCIENTIFIC CONFERENCES ORGANISED BY THE COMMISSION ON BIOLOGY OF EXPERIMENTAL ANIMALS UNDER THE AUSPICES OF ICLAS

ANIMAL PROTECTION ACTS IN POLAND :

DECREE OF POLISH PRESIDENT FROM MARCH 1928 DEFINING REGULATION AND CONDITION FOR ANIMAL EXPERIMENTATION - DEFINED SIGNIFICANT SCIENTIFIC AIM, QUALIFIED AND LICENCED EXPERIMENTATORS AND RESEARCH UNIVERSITY UNITS ONLY, WHERE THE ANIMAL EXPERIMENTS MAY BE PERFORMED.

DECREE OF THE MINISTER OF HIGHER EDUCATION FROM NOVEMBER 1959 EXTENDING THE REGULATION FOR EXPERIMENTAL ANIMAL USE IN EDUCATION PROGRAM, DIAGNOSTIC PURPOSE AND THE CONTROL OF THERAPEUTIC, CHEMICAL AND NUTRITIONAL AGENTS. IN ADDITION TO UNIVERSITY UNITS, IN HOSPITALS, LABORATORIES INVOLVED IN PRODUCTION AND CONTROL OF DRUGS, VACCINES, CHEMICAL AND NUTRITIONAL AGENTS,

ANIMAL PROTECTION ACTS IN POLAND C.D.:

PARLIAMENT LEGISLATION ACTS IMPROVING AND MAKING LEGISLATION CONSISTENT WITH EU DIRECTIVES (86/609/EEC):

AUGUST 1997 - ANIMAL PROTECTION ACT

JANUARY 2005 ANIMAL EXPERIMENTATION ACT

DECREE OF MINISTER OF EDUCATION AND INFORMATISATION FROM JULY 2003 DEFINING THE CONDITION AND PROCEDURES TO REGISTER THE LABORATORY UNITS ENTITLED TO PERFORM TESTS AND EXPERIMENTS WITH THE USE OF ANIMALS,

DECREE OF MINISTER OF EDUCATION AND INFORMATISATION DEFINING THE DETAILED REGULATION OF ANIMAL EXPERIMENTATION MAY 2005 (PROJECT OPEN FOR DISCUSSION).

ALTERNATIVE METHODS

THE INCREASING USE OF CELL CULTURES, MICROBIAL SYSTEMS, COMPUTER SIMULATIONS AND OTHER REPLACEMENT TECHNIQUES PROVIDES CLEAR EVIDENCE OF THE SCIENTIFIC COMMUNITY'S COMMITMENT TO IMPLEMENTING THE RUSSELL-BURCH TENET OF "*REDUCTION, REPLACEMENT AND REFINEMENT*" IN THE USE OF EXPERIMENTAL ANIMALS. HOWEVER, SUCH METHODS ARE, OF NECESSITY, COMPLEMENTARY TO ANIMAL EXPERIMENTATION AND ARE INITIALLY DEPENDENT ON ANIMAL-BASED RESEARCH. THE APPLICABILITY OF SUCH TECHNIQUES DEPENDS ON VALIDATION USING ANIMAL SYSTEMS, AND ON CLINICAL STUDIES. CONFIRMATION OF THE DATA FREQUENTLY REQUIRES THE INVESTIGATOR TO "RETURN TO THE WHOLE ANIMAL"

Harry C. Rowsell, OC, DVM, PhD

Canadian Council on Animal Care (former executive Director and former ICLAS President)