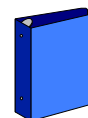


AnimAlt-ZEBET

Verzeichnis der Dokumente im ZEBET-Handarchiv

Version 1, September 2004



- zur Bewertung vorbereitete Alternativmethoden nach Fachgebieten geordnet

Animal Production
Cancer Research
Cardiology
Food Hygiene
Immunology
Microbiology
Molecular Biology
Neurology
Ophthalmology
Parasitology
Pharmacology
Pharmacy
Physiology
Toxicology

Animal Production

Methodentitel	Methoden-nummer
Quantitative determination of estrogen like substances in feedstuffs by measuring synthesis of estrogen specific proteins in cell cultures as a replacement of the uterotrophic assay in rodents	158
Primary rumen epithelial cells for the study of feedstuff-dependent processes as a replacement of feeding studies in sheep and cattle	199

Cancer Research

Methodentitel	Methoden-nummer
Prescreening of potential cytostatica using hematopoietic stem cells	4
Prescreening of potential cytostatica using the tumor stem cell assay	5
Multicell spheroid cultures using tumor cells and embryonic cardiac muscle cells to study invasive tumor growth	19

Tumor stem cell colony-forming assay according to Hamburger and Salmon for the prescreening of cytostatica	79
Application of the methyl-tetrazolium (MTT) and cytochrome tests for the study of tumor inhibiting and immune modulating substances	92
Testing the efficacy of cytostatica in human malignant melanoma cells	115
Application of microcalorimetry in human lymphocyte cultures for the assessment of the effect of antileukemic drugs	120
Laser fluorescence optics for the diagnosis of neoplasia using the chick chorioallantois membrane	147
Cultured rat liver epithelial cells for the study of transformed cells	195
Mathematical model of the cell cycle in order to complement animal testing in cancer research	209
"Mini Organ Culture" using mammary tissue for the study of mammary carcinoma	210
Study of tissue invasion of tumors using the monolayer invasion assay in murine fibroblasts cell cultures and human lymphoma cells	217
Quantitative in vitro transformation assay for kidney epithelial cells	256

Cardiology

Methodentitel	Methoden-nummer
Computer models of heart function	81

Immunology

Methodentitel	Methoden-nummer
In vitro measurement of cytokine production in leucocyte cultures for the screening of immune-stimulatory substances	104
Isolation of polyclonal antibodies from the eggs of immunized chicken	203
Production of monoclonal antibodies using hybridoma cells cultivated in fertilized chick embryos	215
Production of monoclonal antibodies against trophoblast cell and chorion carcinoma cell antigens after in vitro immunization	216

Observation of 3D single cell tracking using time lapse microscopy	255
--	-----

Microbiology

Methodentitel	Methoden-nummer
Detection of tubercle bacilli according to DIN 58943 part 3 as replacement of animal testing according to DIN 58943 part 31	1
Radiometric method for the detection of tubercle bacilli as replacement of animal testing according to DIN 58943 part 31	2
Polymerase Chain Reaction (PCR) for the detection of Mycobacterium tuberculosis	3
Anti-lepra drug screening using laser microprobe mass analysis of Mycobacterium leprae as replacement of the mouse paw test in lepra therapy	11
Anti-lepra drug screening using ATP measurement in Mycobacterium leprae as replacement of the mouse paw test	12
Anti-lepra drug screening using radiometric methods as replacement of the mouse paw test	16
Detection of rabies virus by cultivation in a murine neuroblastoma cell line	33
In vitro assessment of disinfectants against tubercle bacilli	91
Detection of Chlamydia psittaci in fecal and tissue samples of psittacine birds using Enzyme-linked Immunosorbent Assay (ELISA) as alternative to the mouse inoculation test	93
In vitro cultivation of herpes simplex virus strains for the screening of antiviral drugs	95
In vitro identification of pathogenic and apathogenic avian influenza viruses	97
Detection of Chlamydia psittaci in fecal and tissue samples of psittacine birds using cell cultures as an alternative to the mouse inoculation test	100
In vitro determination of the pathogenicity of Pseudomonas aeruginosa sp.	149
Immunological detection of bacterial toxins using Staphylococcus coagglutination	150
Monoclonal antibodies as a replacement of animal antisera for typing of Salmonella	151
Human hepatoma cell culture for the screening of antiviral (hepatitis) drugs	191

Polymerase chain reaction to determine the pathogenicity of Newcastle disease virus isolates and for the quality control of Newcastle disease vaccines	163
Biosensors and immunosensors for the detection of botulinum neurotoxin	204
Replacement of the guinea pig skin test and the mouse lethality test for Pasteurella multocida toxin testing by detection with a cell culture assay	223
Replacement of the guinea pig skin test and the mouse lethality test for Pasteurella multocida toxin testing by immunological methods	224
Tests for virulence of Pasteurella multocida and Pasteurella haemolytica in embryonated chicken eggs	227
Detection and characterization of Bacillus anthracis using different in vitro methods	247
Detection and characterization of Coxiella burnetii using different in vitro methods	248
Detection of rabies virus by polymerase chain reaction	254
Enzyme-linked-immunosorbent assay (ELISA) for the quantification of antibodies against Clostridium perfringens beta and epsilon toxin	258
In vitro potency testing of blackleg vaccines based on soluble and cellular antigens of Clostridium chauvoei	259
Potency testing of Clostridium vaccines using cell culture as an alternative to the mouse toxin neutralisation test	260

Neurology

Methodentitel	Methoden-nummer
Glioblastoma cell lines as a model for the study of cytotoxic brain edema	98
Computer simulation of neuronal networks	184
Primary culture of nociceptive neurons for the study of pain perception	208
Primary culture of neuronal cells for the study of the Parkinson syndrome induced by neurotoxins as a replacement for testing in monkeys and mice	213
Electrophysiological investigations of natural vision in untrained awake monkeys	266

Ophthalmology

Methodentitel	Methoden -nummer
Video fluorescein angiography to study abnormalities in retinal circulation	82
Retinal pigment epithelium as an in vitro model in ophthalmology	202

Parasitology

Methodentitel	Methoden -nummer
In vitro cultivation of larval and adult nematodes to screen for anthelmintica	34
In vitro cultivation of <i>Naegleria fowleri</i> in human and animal cell cultures for drug screening	41
In vitro cultivation of <i>Babesia</i> sp. in peripheral blood lymphocytes of specific hosts	64
In vitro cultivation of <i>Eimeria</i> sp. in cell cultures for antiparasitic drug screening	68
Polymerase Chain Reaction (PCR) for the detection of <i>Toxoplasma gondii</i> as a replacement for the mouse inoculation test	122
In vitro cultivation of <i>Theileria</i> in lymphocyte cultures for drug screening	134
In vitro cultivation of <i>Tripanosoma</i> in cell free media and host cell cultures for drug screening	135
In vitro cultivation of <i>Sarcocystis</i> in cell cultures	136
In vitro cultivation of <i>Toxoplasma gondii</i> in human and animal cell cultures for drug screening	139
In vitro cultivation of the developmental stages of various <i>Plasmodium</i> species	140
In vitro cultivation of adult <i>Schistosoma</i> sp. and different developmental larval stages for screening of anthelmintica	142
In vitro cultivation of <i>Cryptosporidium</i> in cell cultures for drug screening	143
Membrane feeding of ticks	145
In vitro cultivation of <i>Trichomonas vaginalis</i> for the assessment of virulence and screening of drugs	207

Pharmacology

Methodentitel	Methoden -nummer
Computer aided design of antiviral peptides and RNA molecules	28
Formation of extensive canalicular networks by rat hepatocytes in collagen sandwich configuration	29
A tissue like culture system using micromechanical processed microstructures	35
In vitro compartment models of drug resorption from the gastrointestinal tract	41
In vitro compartment model to study the dose-response relationship of antibiotica	43
Biophysical membrane model for drug screening	49
In vitro model of lung function	65
Cryopreservation as effective means of preserving and storing vascular tissue for pharmacological investigations	73
Computer simulations of the blood brain barrier for pharmacokinetic studies	75
Electrophysiological measurements with cultured neuroglia from rat and mouse for drug screening supplementary to in vivo testing	77
In vitro screening of positive inotropic and vasoactive compounds on isolated human cardiovascular tissues	83
Protection of rat cardiomyocytes against reoxygenation-induced hypercontracture	99
Clonal nerve cell lines (rat) for neuropharmacological research and neurotropic drug screening supplementary to in vivo testing	102
Excised human plaque tissue as model for arteriosklerosis for the screening of potential drugs	106
Rat hepatocyte cultures for the screening of drugs used in the treatment of arteriosklerosis	112
The integration of physiologically-based kinetic models and in vitro methods for risk assessment	117
Isolated rat myocardial cells for the screening of cardioactive pharmaceuticals	121

Analysis of the serum concentration of veterinary drugs to calculate excretion rates in order to reduce the number of test animals	127
Isolated rabbit blood vessels for the study of substances binding to muscarinic receptors as replacement of the despinalised rat model	128
Screening of anti-ulcer drugs in mammalian gastric mucosal cell cultures	129
Primary cultures of neurons and glia cells (chick embryo, neonatal rat) for testing cerebroprotective effects of miscellaneous drugs supplementary to in vivo testing	130
Isolated guinea pig bladder muscle for the study of the effects of anticholinergica	131
Spinal cord nerve cell cultures of the mouse	138
ATR infrared optics for the study of drug permeability through the human skin	148
Examination of the effects of novel drugs using epicardiac surface and stimulation electrocardiogram (SST-ECG) in Langendorff perfused guinea pig hearts	156
Maintainance of differentiated hepatic cell functions by using a perfusion bioreactor	159
Molecular cloning and functional expression of human receptors and associated proteins in cultured cells as a tool for drug discovery screening and drug development	160
Immunofluorescence and radioimmunoassay for the detection of substances with estrogen like effects in slaughterhouse animals	161
In vivo and in vitro screening of positive inotropic and vasoactive drugs using cardiac tissue of different animals	165
In vitro culture of human skin fibroblasts to study the effects of glucocorticoids	176
Screening of positive inotropic drugs using human myocardial tissue	183
Cultured rabbit synovial fibroblasts for the screening of antirheumatic drugs	192
Isolated skin preparations for the assessment of percutane resorption of drugs and chemical substances	197
Aggregates of cardiomyocytes as a substrate for the in vitro assessment of cardiac glycoside potency	200
Isolated strips of guinea pig ileum muscle as a model for the action of various drugs on contractile responses	206

Human and non-human brain capillary endothelium cocultured with astrocytes as an in vitro model of the blood-brain barrier for pharmacological and toxicokinetic examination of drugs and chemical substances	220
Inhibition of transforming growth factor-beta1 and UV light-induced apoptosis by prostanoids in rat primary hepatocyte cultures	230
Potency testing of anti-epileptic and anti-spastic drugs using cultured neuronal tissue	231
Alternative diagnostics for Hepatitis B and Hepatitis A vaccines: three methods of antigen determination	235
HPLC: an alternative method for ACTH testing	238
Enzyme-linked immunosorbent assay assessment of bovine viral diarrhoea virus antigen in inactivated vaccines using polyclonal or monoclonal antibodies	244
Use of primary rat and human hepatocyte sandwich cultures to study gene mutations and alterations in DNA structure	250
Drug metabolizing capacity of cryopreserved human rat and mouse hepatocytes	253
Isolated porcine ear skin	263
Isolated perfused rabbit ear	264
Prediction of drug transport across barriers for priority setting in drug development: in vitro biokinetic models for the alveolar epithelium	275
In vitro investigations of the effects of chemical substances on ion channels involved on long QT syndrome - a preclinical method to verify cardiovascular safety	277

Pharmacy

Methodentitel	Methoden-nummer
Potency testing for rabies vaccines using the antibody binding test as a replacement of the mouse test	7
Monoclonal antibodies to characterize yellow fever virus strains for the safety assessment of oral yellow fever vaccine as a replacement for testing neurovirulence in monkeys (intraspinal monkey neurovirulence test)	24
Determination of the potency of vaccines against foot and mouth disease using neutralising antibodies	69

Assessment of the effects of cardioglycosides using ATPase inhibition	87
An in vitro model of hepatic failure in septic shock	89
Single-radial-immunodiffusion (SRID) as a replacement for the NIH mouse potency test for rabies vaccine	170
Enzyme-linked immunosorbent assay (ELISA) for the potency determination of rabies vaccines as a replacement of the mouse neutralisation assay	171
Enzyme-linked immunosorbent assay (ELISA) for the potency determination of swine erysipelas vaccines as a replacement of the mouse neutralisation assay	172
High performance liquid chromatography (HPLC) for quality control of insulin	187
Serum neutralization tests for potency testing of vaccines against progressive atrophic rhinitis as a replacement of lethal challenge tests	226
Serological potency test for pertussis vaccine as an alternative for the intracerebral mouse protection test	232
In vitro lymphocyte blastogenesis assay for potency determination of fish vaccines	240
Immunological and cell culture method as a replacement for the toxin neutralization test for the potency testing of Clostridium novyi vaccines	261

Physiology

Methodentitel	Methoden-nummer
Recordings from hair cells and models for ion channels	42
Computer simulation of the function of the frog cerebral cortex	48
The human colonic adenocarcinoma cell line Caco-2 and other cultured cell systems as models for studying the functions of the human intestinal epithelium	155
Isolated human cardiac muscle cells for electrophysiological studies	214
Isolated strips of human myocard tissue for the study and therapy of heart failure	218
Isolated perfused rodent kidney	219

Toxicology

Methodentitel	Methoden -nummer
Detection of gene mutations using <i>Salmonella typhimurium</i> (Ames test)	6
SOS chromotest for the detection of gene mutations	13
Measurement of alterations in DNA structure by alkaline elution in cell cultures	14
Detection of de novo synthesis of heat shock protein in isolated cardiac muscle cells to assess the toxicity of drugs and chemical substances	32
In vitro tests for cytotoxicity of medical devices according to ISO 10993 "Biological evaluation of medical devices Part 5: Tests for cytotoxicity: in vitro" 1992	55
Isolated aorta for the assessment of the damaging effects of intravenously administered drugs	57
Assessment of fertility (Segment I) using exclusively male rats as part of the test schedule for reproductive toxicology	59
Cell transformation assays for testing the carcinogenic potential of substances	61
Detection of chromosomal mutations using human lymphocyte cell cultures	62
In vitro micronucleus test for the detection of chromosomal mutations	67
Cultivated corneal fibroblasts as a model for drug induced mucopolysaccharidosis of the eye	70
Restriction of test duration in chronic toxicity studies	80
Application of videomicroscopy for the assessment of cytotoxic effects of drugs and chemical substances	85
Autoradiographic measurement of DSNA repair in primary cultures of rat hepatocytes for the detection of genotoxic chemicals	111
Cultured human keratinocytes as a skin model for the screening of drugs and chemical substances in hazard identification	116
In vitro study of DNA repair processes in mammalian cells to monitor cytotoxic, mutagenic, and oncogenic effects of carcinogenic substances	124
Detection of chromosomal mutations using mammalian embryonal somatic cells instead of germ cells	125
Screening of chemical substances for their potential to induce human urinary bladder cancer by using porcine urinary bladder epithelial cell (PUBEC) cultures	162

In ovo model of carcinogenesis for limitation for restricting carcinogenicity testing in vivo	168
Human follicular epithel cell cultures for the screening of toxic substances affecting reproduction	174
In vitro models for the testing of nephrotoxicity of drugs and chemical substances	189
Isolated strips of pig epidermis	193
Genetically modified V79 Chinese hamster cells for the study of the metabolism and the mutagenicity of drugs and chemical substances	196
Liver slices for the screening of hepatotoxic effects of chemical substances	201
Screening of the biocompatibility of percutaneous devices in order to reduce the use of implantation tests in animals	205
Human and rodent bone marrow cell cultures for the study of the biocompatibility of orthopaedic implant materials as an alternative to testing in animals	239
The luminescent bacteria toxicity test for the assessment of the cytotoxicity of medical devices	249
The use of the HET-CAM Test to determine the potential of biomaterials to cause irritation to mucous membranes	262