

Principles of Research and Technology Buildings

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What is research?

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Research today

Gunter Henn

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Research and research buildings: the example of Life Sciences

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Building culture: magic and identity of place

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Energy

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Electrical power

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Air

Hans-U. Jaeger

Selection of Projects

Context

SCIENCE CAMPUS

66
**Maersk McKinney Møller Institute
for Production Technologies**
Henning Larsens Tegnesteue A/S

68
**Bourns Hall, Engineering Science
Building, University of California**
Anshen + Allen

70
**Institute of Physics,
Humboldt University of Berlin,
Adlershof Campus**
Augustin und Frank Architekten

72
Max Planck Campus Tübingen
Fritsch + Tschaidse Architekten

74
**Institutes and Lecture Hall
for Biology and Chemistry,
University of Rostock**
Volker Staab Architekten

76
**Fred Hutchinson
Cancer Research Center**
Zimmer Gunsul Frasca Partnership

78
**Belfer Building for Molecular
Genetics and Cancer Research,
Weizmann Campus**
Moshe Zur Architects Urbanists
& Town Planners

82
**Laboratory Building
of Cologne University Hospital**
Heinrich Wörner + stegepartner

84
**Centre for Cellular
and Biomolecular Research**
Behnisch, Behnisch & Partner Architekten
with architectsAlliance

URBAN LANDMARKS

86
**Male Urological Cancer
Research Centre**
Copping Lindsay Architects

88
**Biosciences Building,
University of Liverpool**
David Morley Architects

90
**Life Sciences Complex,
Ben Gurion University**
Ada Karmi-Melamede & Partners

92
**Centre for Information and Media
Technology, Adlershof Science and
Technology Park**
Architectenbureau cepezed b.v.

94
Parque Tecnológico IMPIVA
Carlos Ferrater, Carlos Bento,
Jaime Sanahuja

96
**Center for Biotechnology
and Bioengineering**
Bohlin Cywinski Jackson

98
Max Bergmann Centre of Biomaterials
Brenner & Partner
Architekten und Ingenieure
Brenner-Hammes-Krause

100
**Max Planck Institute
for Evolutionary Anthropology**
SSP Architekten
Schmidt-Schickelanz und Partner GmbH

102
**Max Planck Institute for
Infection Biology and
German Arthritis Research Centre**
Deubzer König Architekten

104
Barcelona Botanical Institute
Carlos Ferrater, Joan Guibernau,
Elena Mateu

LARGE STRUCTURES

108
**Computer Science and
Electrical Engineering Institutes,
Graz University of Technology**
Riegler Riewe Architekten ZT-Ges.m.b.H.

112
Saitama Prefectural University
Riken Yamamoto

114
**Technology Centre,
Rhine-Elbe Science Park**
Kiessler + Partner Architekten GmbH

116
La Ruche, Technocentre Renault
Valode & Pistre Architectes

Access Systems

COMB-LIKE SYSTEMS

120
Headquarters of NeuroSearch A/S
Henning Larsens Tegnesteue A/S

122
**Institute for Chemistry and Lecture
Building for Chemistry and Physics,
Humboldt University of Berlin,
Adlershof Campus**
Volker Staab Architekten

124
Sciences Institute
Heinle, Wischer und Partner
Freie Architekten
Krebs und Kiefer International

126
Nokia Research Center
Tuomo Siitonen and Esko Valkama,
Helin & Siitonen Architects

DOUBLE-LOADED SYSTEMS

128
**State Office
for Chemical Investigations**
Dipl.-Ing. Michael Weindel
Freier Architekt

130
Max Planck Institute of Biophysics
Auer + Weber + Architekten

134
**Fraunhofer Institute
for Manufacturing
and Advanced Materials**
Brenner & Partner
Architekten und Ingenieure
Brenner-Hammes-Krause

136
**Center of Advanced European Studies
and Research (CAESAR)**
BMBW Architekten + Partner

140
**Fraunhofer Institute
for Applied Polymer Research**
Brenner & Partner
Architekten und Ingenieure
Brenner-Hammes-Krause

142
**Pharmacological Research Building,
Boehringer Ingelheim Pharma KG**
sauerbruch hutton architekten

Communication

Form

Appendix

CORE SYSTEMS

144
Centre for Energy and Technology
Knoche Architekten

146
Molecular Sciences Building
Anshen + Allen

148
CIBA-Geigy Life Sciences Building
Mitchell/Giurgola Architects, LLP

150
Centre for Human Drug Research
Architectenbureau cepezed b.v.

152
**Laboratory Building
for Medical Genome Research**
Volker Staab Architekten

154
**Sir Alexander Fleming Building,
Imperial College**
Foster and Partners

TRIPLE-LOADED SYSTEMS

156
**Biosciences Building,
Bundoora West Campus,
RMIT University**
John Wardle Architects

158
BIOSTEIN
**Agrobiological Research Centre
of Novartis Crop Protection AG**
wilhelm und partner
Freie Architekten

160
**Biological Sciences and
Bioengineering Building,
Indian Institute of Technology**
Kanvinde Rai & Chowdhury
Architects & Planners

162
**Southwest Bio-Tech
Intermediate Test Base**
Atelier Feichang Jianzhu

164
**Engineering Research Center,
University of Cincinnati**
Michael Graves & Associates
with KZF Inc.

168
**Max Planck Institute for
Molecular Cell Biology and Genetics**
Heikkinen-Komonen Architects
with Henn Architekten

172
Donald Danforth Plant Science Center
Nicholas Grimshaw & Partners

174
**Graz Research Centre of the
Austrian Academy of Sciences**
Architektenbureau cepezed b.v.

176
**Naito Chemistry Building
and Bauer Laboratory Building,
Harvard University**
Ellenzweig Associates, Inc., Architects

178
**Gifu Research Laboratories
of Amano Enzyme Inc.**
Kisho Kurokawa architect & associates
Richard Rogers Partnership Japan Ltd.

180
**AstraZeneca Research and Development
Centre for Biology and Pharmacy**
Wingårdh Arkitektkontor AB

182
**Max Planck Institute for Plasma Physics,
Greifswald Branch**
Henn Architekten

186
**Max Planck Institute
for Chemical Ecology**
BMBW Architekten + Partner

190
**Faculty of Mechanical Engineering,
Technical University of Munich**
Henn Architekten

192
**James H. Clark Center,
Stanford University**
Foster and Partners

FORM AND FUNCTION

196
**Berlin Electron Storage Ring BESSY II,
Adlershof Science and Technology Park**
Brenner & Partner
Architekten und Ingenieure
Brenner-Hammes-Krause

198
**Nuclear Magnetic Resonant Instrument
Laboratory, Peking University**
Atelier Feichang Jianzhu

200
**Panta Rhei Research Centre
for Lightweight Materials**
kleyer.koblitz architekten

202
**Degussa Construction Chemicals
Competence Centre**
Raupach + Schurk Architekten

FORM AND SHAPE

206
Mercedes-Benz Design Center
Renzo Piano Building Workshop
with C. Kohlbecker

210
**Schlumberger Cambridge
Research Centre**
Michael Hopkins & Partners

212
Semperit Research Building
Najjar & Najjar Architekten

214
**Physics and Astronomy Laboratories,
Leiden University**
(EEA) Erick van Egeraat associated architects

218
BASE Factory & Laboratory
Architect 5 Partnership

220
Research Station, University of Namibia
Erhard Roxin Architects

222
**Centre for Photonics 1, Adlershof
Science and Technology Park**
sauerbruch hutton architekten

224
International Neuroscience Institute
SIAT GmbH

226
Van Andel Institute
Rafael Viñoly Architects PC

228
**Research and Laboratory Building,
Beiersdorf AG**
HHS Planer + Architekten AG

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