

**Contact information**

Julian Voss-Andreae  
Phone: +1 (503) 329-5203 (PST)  
E-mail: info@JulianVossAndreae.com  
Website: www.JulianVossAndreae.com

**Place and Year of Birth**

Hamburg (Germany), 1970

**Exhibitions**

- 2012 *Gallery Without Walls*, Lake Oswego, Oregon. Invitational.  
*Clackamas Outdoor Sculpture Exposition*, Oregon City, Oregon. Curated by Rick True. Invitational.  
*Science Art 2012*, The Central House of Artists, Moscow, Russia. Curated by Simon Erohine.
- 2011 *Intersculpt 2011*, Galerie Luc Monod, Paris, France. Curated by Mary Visser and Christian Lavigne.  
*Science and Art*, Sarah Silberman Art Gallery, Montgomery College, Rockville, Maryland. Curated by Kay McCrohan and Percy North. Invitational.  
*New Works*, Frederic Boloix Fine Arts Gallery, Sun Valley, Idaho. Invitational.  
*Quantum Jazz Biology \* Medicine \* Art*, ISIS meeting, London, UK. Invitational.  
*Science without Borders*, Annual AAAS Meeting, Washington, DC.  
Present Space, Portland, Oregon.  
*Measure for Measure*, Central Booking Gallery, Brooklyn, New York. Curated by Maddy Rosenberg. Invitational.  
*The Consilience of Art & Science*, Pence Gallery, Davis, California. Curated by James Housefield and Diane Ullman.
- 2010 *Attract/Repel*, Central Booking Gallery, Brooklyn, New York. Curated by Maddy Rosenberg. Invitational.  
*Scienar Exhibition*, University of Calabria, Arcavacata di Rende, Italy. Invitational.  
*Chemical Reactions*, Central Booking Gallery, Brooklyn, New York. Curated by Maddy Rosenberg. Invitational.  
*Art & Science Exhibition*, ISMB 2010, Boston, Massachusetts. Curated by Milana Frenkel-Morgenstern. Invitational.  
Evergreen Aviation Museum, McMinnville, Oregon.  
*Art Inspired by Science*, Schneider Museum of Art, Ashland, Oregon. Curated by M. Crane, R. L. Chianese, and J. Hafernik.

- Interferente*, National University of Art, Bucharest, Romania. Curated by Gheorghe Samoila. Invitational.
- 2009 *Worlds Within Worlds*, American Center for Physics, College Park, Maryland. Curated by Sarah Tanguy. Invitational.
- Art in the Pearl*, Portland, Oregon.  
Guardino Gallery, Portland, Oregon.  
Coos Art Museum, Coos Bay, Oregon.
- Structures to Sculptures* (solo show), Centre for Cellular and Molecular Biology, Hyderabad, India. Curated by Madhusudan W. Pandit. Invitational.
- 2008 El Paseo Invitational Exhibition, Palm Desert, California. Curated by M. Stephenson.  
Swiss Institute of Bioinformatics, Lausanne, Switzerland. Curated by Vivienne B. Geritsen. Invitational.
- Gallery Without Walls*, Lake Oswego, Oregon. Invitational.  
Onda Gallery, Lake Oswego, Oregon.
- Big Rock Garden Sculpture Exhibition*, Big Rock Sculpture Park, Bellingham, Wash.  
*Art and Mathematics: The Wonders of Numbers*, The Heckscher Museum of Art, Huntington, New York. Curated by Lynn Gamwell. Invitational.
- Natural Beauty*, Sixth Street Gallery, Vancouver, Washington. Juried by T. Donahue.  
*Inspired by Life* (solo show), Rutgers University, New Jersey. Curated by Christine Zardecki. Invitational.
- 2007 *West Edge Sculpture Exhibition*, Seattle, Washington. Juried by Michael Darling, Barbara Shaiman, and Gregory Robinson.
- Clackamas Outdoor Sculpture Exposition*, Oregon City, Oregon. Curated by Rick True and Terry Chatkupt. Invitational.
- Lane Community College Outdoor Sculpture Exhibition*, Eugene, Oregon. Curated by Andreas Salzman and Lee Imonen. Invitational.
- Mein Gen, das hat fünf Ecken (My Gene, It has Five Corners)*, Zentrum für Kunst und Medientechnologie, Karlsruhe, Germany. Curated by Andreas F. Beitin and Gregor Jansen. Invitational.
- Outdoor Sculpture Exhibition*, La Conner, Washington. Curated by Margaret C. Arnett.  
*Outdoor Sculpture Invitational*, Maryhill Museum of Art, Goldendale, Washington. Curated by Lee Musgrave. Invitational.
- 2006 *Wonderfest*, Stanford University, California. Invitational.  
*Wonderfest*, UC Berkeley, California. Invitational.  
*German American Artists*, German Consulate General, San Francisco, California.  
*Sculpture Without Walls*, Moses Lake, Washington.  
*Natural Cycles*, Tryon Creek State Park, Portland, Oregon.  
*Lake Oswego Visual Arts Chronicle*, Lake Oswego, Oregon.

- Frederic Boloix Fine Arts Gallery, Sun Valley, Idaho. Invitational.  
*Art in the Pearl*, Portland, Oregon.  
Orange Memorial Park Sculpture Garden, South San Francisco, California.  
Westcott Bay Reserve Sculpture Garden, San Juan Island, Washington. Juried by Kay Kammerzell.  
Guardino Gallery, Portland, Oregon. Invitational.  
*Iron and Steel*, Alexander Gallery, Clackamas Community College, Oregon City, Oregon. Curated by Rick True. Invitational.
- 2005 *Art Intersect Science*, Lucid Gallery, San Francisco, California. Curated by Kristin Henry. Invitational.  
*New Art on the Block*, Disjecta Fundraiser, Portland, Oregon.  
*AFFAIR @ the Jupiter*, The Jupiter Hotel, Portland, Oregon. Juried by Stuart Horodner and Laurel Gitlen.  
*Pacific Northwest Sculptors Exhibition*, Allied Arts Gallery, Richland, Washington.  
*I'm Ready For My Close Up*, Washington Gallery of Photography, Bethesda, Maryland. Juried by Missy Loewe.  
*Pacific Northwest Sculptors Exhibition*, Portland Center for Performing Arts, Portland, Oregon.  
*Gallery Without Walls*, Lake Oswego, Oregon. Invitational.  
*The Convergence of Art and Science*, Fort Collins Museum of Contemporary Art, Fort Collins, Colorado. Juried by Jeanne Shoaff.  
Arlene Schnitzer Concert Hall, Portland, Oregon.  
Westcott Bay Reserve Sculpture Garden, San Juan Island, Washington. Juried by Kay Kammerzell.  
*Portland Modern Showcase*, Gallery 500, Portland, Oregon. Juried by Mark Brandau.
- 2004 *Lifeboat Miami*, Art Basel, Miami Beach, Florida. Curated by Paul Middendorf. Invitational.  
*MergeLeft* (MoveOn PAC Fundraiser), Portland, Oregon.  
*Emerging Artists Exhibition*, Catlin Gabel School, Portland, Oregon. Curated by Becky Wynne. Invitational.  
*Multnomah Democrats Fundraiser*, Portland, Oregon.  
*AFFAIR @ the Jupiter*, The Jupiter Hotel, Portland, Oregon. Juried by Stuart Horodner and Laurel Gitlen.  
Redmond Sculpture Garden, Redmond, Washington. Juried by Kay Tarapolsi.  
*5th Annual Wilsonville Festival of the Arts*, Wilsonville, Oregon.  
*B.F.A. Thesis Exhibition*, PNCA, Portland, Oregon.  
*Synthesis*, Feldman Gallery, Portland, Oregon.  
*Chop Shop*, PNCA, Portland, Oregon. Juried by Stuart Horodner.

- 4th Annual B.F.A. Exhibition*, PNCA, Portland, Oregon.  
*PNCA @ OHSU*, BICC Gallery, Oregon Health and Science University, Portland, Ore.  
*Fantasy World*, Higgins Gallery, PNCA, Portland, Oregon.  
*DNA Art & Science*, Contemporary Art Museum, Tampa, Florida.
- 2003 Co7 Gallery, Portland, Oregon.  
*B.F.A. Sculpture Exhibition*, Manuel Izquierdo Sculpture Gallery, Portland, Oregon.  
*Junior Exhibition*, PNCA, Portland, Oregon.  
*4th Annual Wilsonville Festival of the Arts*, Wilsonville, Oregon.  
*3rd Annual B.F.A. Exhibition*, PNCA, Portland, Oregon.  
*Artifice*, Manuel Izquierdo Gallery, Portland, Oregon.  
*PNCA @ OHSU*, BICC Gallery, Oregon Health and Science University, Portland, Ore.
- 2002 *2nd Annual B.F.A. Exhibition*, PNCA, Portland, Oregon.  
*For the Love of Art* (PNCA Fundraiser) Portland, Oregon.
- 1991 *Jugend sieht Architektur*, Rathaus Altona, Hamburg, Germany.
- 1990 *Jugend sieht Architektur*, Rathaus Altona, Hamburg, Germany.

### Selected Private Collections

Please contact the artist

### Selected Institutional and Public Collections

DePauw University (Greencastle, Indiana)  
The Bravern (Bellevue, Washington)  
Friday Harbor Laboratories, University of Washington (Friday Harbor, Washington)  
The Scripps Research Institute (Jupiter, Florida)  
The Maryhill Museum of Art (Goldendale, Washington)  
The City of Moses Lake (Moses Lake, Washington)  
Institute for Molecular Bioscience, University of Queensland (Brisbane, Australia)  
Linus Pauling Center for Science, Peace and Health (Portland, Oregon)  
MBank (Portland, Oregon)  
Pacific Northwest College of Art (Portland, Oregon)

### Media Coverage: Television

- 2008 "Quantum Sculptures by Julian Voss-Andreae", Oregon Art Beat (Oregon Public Broadcasting Television, December 18)
- 2006 "'Natural Cycles' Exhibit", 10 o'clock news (FOX 12, September 15)  
"'Natural Cycles' Exhibit", Good Day Oregon (FOX 12, September 14)
- 2005 "Streets of Speed", Good Day Oregon (FOX 12, November 14)  
"Traffic Calming Art" (KOIN News 6, August 2)
- 2004 "The Redmond Sculpture Garden" (RC Television 21, September 1)  
"Linus Pauling Statue", Oregon Art Beat (Oregon Public Broadcasting Television, May 6)

**Media Coverage: Radio**

- 2005 "Diskurs: Einstein's Erben. Quantenbillard oder: Die spukhafte Fernwirkung" ("Einstein's Heirs. Quantum Billiards or: Spooky Action at a Distance", in German), WDR 3 (Westdeutscher Rundfunk Köln, April 9)

**Media Coverage: Press**

- 2011 "Arts Appreciation. Artistic endeavors flourish in the City of Roses", Alaska Airlines Horizon, p. 12-19 (October)  
"Vortex Woman", The Weekly Sun, p. 10 (August 31)  
"Quantum Glass", The Weekly Sun, p. 6 (August 3)  
"Science in art and art in science: an interview with Julian Voss-Andreae", ASBMB Today (January 2011)
- 2010 "Quantum concepts you can touch", Symmetry Magazine, pp. 28-31 (April issue)  
"Quantum Sculpture: Art Inspired by the Deeper Nature of Reality", Quantum Health, pp. 24-27 (February 2010)  
"Artful Quandary", City Arts, pp. 7-8 (February 25, 2010)  
"Quantum Man", 1859 Oregon's Magazine, pp. 23-25 (Winter 2010)
- 2009 Cover art, Academic Medicine (December 2009)  
"Quantum objects on show", Nature, p. 416 (November 26)  
"Bodies in motion", The World (March 13)  
"Sculptor mixes physics, art in his creation for Scripps", Sun Sentinel, p. 5B (March 11)  
"'Angel of the West' brings science, art to life", T.C. Palm (March 3)  
"Art of Science", The Times of India, Hyderabad (February 26)
- 2008 "Quantum of culture", Physics World (September 1), pp. 19-21

- "'Gallery Without Walls' puts art in public spaces", *The Oregonian* (August 14)
- "The Passion of Proteins", PNCA newsletter re:view, p. 6 (Summer 2008)
- "Protein Sculptures for the People", *AWIS Magazine*, pp. 14–17 (Spring 2008)
- "The crucible: Art inspired by science should be more than just a pretty picture", *Chemistry World*, pp. 42–43 (March 2008)
- "The Dog, the Scientist, and the Frisbee" (interview), *Sculptural Pursuit*, pp. 27–33 (Spring 2008)
- "Outdoor Sculpture Garden Gains Additions", *Maryhill Magic* (Winter 2008)
- 2007 "Invisible Monuments" (in Russian), *Computerra*, pp. 26–28 (December 5)
- "Art of Science Update", *Protein Data Bank Newsletter*, p. 4 (Fall 2007, Number 35)
- "Escultor de proteínas" ("Protein sculptor", in Spanish), *El País* (September 19)
- "Let's Talk About Our Roots", *Atlantic Monthly* (September issue)
- "Sculpture show takes steps in right direction", *Seattle Times* (July 27)
- "Wanderer zwischen den Welten" ("Wanderer between the worlds", in German), *Stahlreport*, pp. 38–39 (July issue)
- Cover art, *Current Proteomics* (all 2007 issues)
- "Sculpture voters take a 'Quantum' leap", *Columbia Basin Herald* (June 13)
- "Physik lässt einen nicht einfach los" ("Physics doesn't let go of you", interview, in German), *Physik Journal*, pp. 22–23 (June issue)
- "Give us a brake", *The Oregonian*, In Portland (April 12)
- Skagit Valley Herald* (March 24)
- "Julian Voss-Andreae, Protein Sculptor" (interview), *Protein Data Bank Newsletter*, pp. 9–11 (Winter 2007, Number 32)
- 2006 "Once a physicist: Julian Voss-Andreae" (interview), *Physics World*, p. 44 (Nov. issue)
- "Nature and art intertwine at park", *The Oregonian* (October 13)
- "Natural Cycles: A Celebration of Art in the Forest", *The Oregonian* (September 15)
- "'Family day' to feature art", *Lake Oswego Review* (September 14)
- "Up the Creek Without a Buckyball?", *Willamette Week* (September 13)
- "A human as a quantum object", *Physics World*, p. 7 (September issue)
- "Dual Nature", *Science Magazine* (August 18)
- "Art Intersect Science", *The GalaxyGoo Gazette* (Summer issue)
- "Park art", *San Francisco Magazine* (June issue)
- Cover art, *Current Proteomics* (all 2006 issues)
- Portland Monthly* (May issue) p. 166
- "'Heart of Steel' A Science Lesson" *LOFA Artnews* (Number 2/Spring)
- "Unraveling Collagen' structure to be installed in Orange Memorial Park Sculpture Garden", *Expert Review of Proteomics* (**3** 2)

- "Gallery: Julian Voss-Andreae", Symmetry Magazine (February issue)
- 2005 "Inspirierende Proteine" (in German), Physik Journal (October issue)  
"Blood and Steel", Science Magazine (September 30)  
"New art comes to downtown", Lake Oswego Review (September 29)  
"New statues unveiled", Lake Oswego Review (September 22)  
Cover art, Current Proteomics (all 2005 issues)  
"Scene and Heard", The Sunday Oregonian (January 16)
- 2004 Portland Modern 1 (August 1)  
"Alpha Helix for Linus Pauling", The Portland Mercury (May 13)
- 2000 "Die Quantenwelt wird sichtbar" ("The Quantum World becomes Visible", in German), Berliner Zeitung (December 6)
- 1991 "Ausstellung im Rathaus" ("Exhibition in City Hall", in German), Elbe Wochenblatt (October 30)
- 1990 "Preisverleihung im 'Weißen Haus'" ("Award Ceremony in the 'White House'", in German), Elbe Wochenblatt (November 7)

#### Media Coverage: Books

- 2012 "Origin of Life" by Hernani L.S. Maia, Keith G. Orrell, and Ilda V.R. Dias. (São Paulo, Brazil: Livraria da Física).
- 2011 "Blood" by Chandra Senan (North Wales, UK: Literati Publishing).  
"Principles of Biochemistry" by L. Moran, R. Horton, K. Scrimgeour, and M. Perry (Boston, MA: Pearson).
- 2010 "Passion and Power" by Nancy B. Zastrow. (Silver Spring, MD: The Copper Heron).  
"Art+Science Now" by Stephen Wilson. (London, UK: Thames & Hudson).
- 2009 "Tales from a Small World" by Vivienne B. Gerritsen. (Lausanne: The Swiss Institute for Bioinformatics).

#### Media Coverage: Internet (Selected)

- 2011 "ArtsFest brings together disciplines, communities", The DePauw (November 3)  
"Welding Art and Science", DePauw University (November 1)  
"Vanishing Sliced Steel Sculpture", My Modern Metropolis (October 12)  
"Quantum Sculptures" (video of conference talk), The Institute of Science in Society conference, London, UK. (March 27)  
"Science Sculpture" (video interview), Dr. Kiki's Science Hour (Episode 85, March 3)

- "The Art of Making Science Dance", Huffington Post (February 25)
- 2010 "Math, Science, and Technology in Contemporary Sculpture", Research paper by Philip Likens (March 7)
- 2009 "Art-Science Duality: Sculptor Julian Voss-Andreae", Science Cheerleader (December 22)
- "Julian Voss-Andreae: Science in Fine Art", Viz. (December 9)
- "Crowns, atoms, and antibodies: the work of Julian Voss-Andreae", Bioephemera (December 4)
- "Quantum Objects", homunculus (Philip Ball's blog) (November 27)
- "Julian Voss-Andreae's 'Quantum Objects': Sculptures capture essence of quantum physics", About.com: Physics (November 20)
- "Quantum Physics Visualized", Gizmodo (November 18)
- "Sculptures inspired by quantum physics", BoingBoing (November 17)
- "Quantum Sculpture", Joshua Roebke (October 27)
- "The 2008 Nobel Prize in Chemistry: The Green Fluorescent Protein", The Chemical Educator 14 2, pp. 70–78 (April 1)
- 2008 "New Sculpture Portraying Human Antibody as Protective Angel Installed on Scripps Florida Campus", Art Daily (October 23)
- "New Sculpture Portraying Human Antibody as Protective Angel Installed on Scripps Florida Campus", News & Views (November 10)
- "Protein sculpture inspired by Vitruvian Man", BoingBoing (October 22)
- "Julian Voss-Andreae: Former Quantum Physicist, now Science-Artist", Italian Biocatalysis Center (September 2)
- "Jess and Julian Voss-Andreae", Joe Bartholomew (June 8)
- 2007 "Bloxoms gift Quantum Man", Maryhill Magic (August 17)
- "Wanderer zwischen den Welten" (in German), Lernziel24 (July)
- 2006 "HOWTO make a protein sculpture", BoingBoing (November 13)
- "Protein inspired art", Easternblot (November 10)
- "Der Quantenmann ist 2,50m groß" (in German), No Comment (November 7)
- "Unraveling Collagen explores the realm where art and science meet", City of South San Francisco website (June)
- "Seeing Below the Surface" (interview), Seed Magazine online (May 11)
- 2004 "Bio-Art", Protein Spotlight (December 20)
- "Biomimetic Art", WorldChanging.com (October 16)
- "Protein Sculptures", Genome News Network (October 1)
- Entry in the World Index of Molecular Visualization Resources website (May 18)
- Entry in the History of Visualization of Biological Macromolecules website (March 25)

2003 "Recycled Art in New Mexico", New Mexico Recycling Coalition (March 11)

### Publications

- 2012 Voss-Andreae, J. *Unraveling Life's Building Blocks: Novel Sculpture Inspired by Proteins*. To be published in *Leonardo*.
- 2011 Voss-Andreae, J. *Quantum Sculptures*. Celebrating ISIS: Quantum Jazz Biology \* Medicine \* Art, March 2011, pp. 16–21  
Voss-Andreae, J. *Quantum Sculpture: Art Inspired by the Deeper Nature of Reality*. *Leonardo* **44** 1, pp. 14–20
- 2010 Voss-Andreae, J. *Quantum Sculpture*. Bridges 2010 Conference Proceedings.
- 2008 Voss-Andreae, J. *Towards Quantum Sculpture*. *YLEM Journal* **27** 10/11 pp. 9–12.
- 2005 Voss-Andreae, J. *Protein Sculptures: Life's Building Blocks Inspire Art*. *Leonardo* **38** 1, pp. 41–45.
- 2004 Voss-Andreae, J. *Protein Sculptures*. B.F.A. Thesis Paper, Pacific Northwest College of Art, Sculpture Department.
- 1999 Arndt, M., O. Nairz, J. Voss-Andreae, C. Keller, G. van der Zouw, and A. Zeilinger. *Wave-Particle Duality of C<sub>60</sub> Molecules*. *Nature* **401**, pp. 680–682.  
Voss-Andreae, J. *Coherent Molecule Optics with Fullerenes*. Diplomarbeit (in German), Freie Universität Berlin, Fachbereich Physik.
- 1986 Voss-Andreae, J. *An assembler algorithm to generate colored patterns outside the text field*. *Data Welt* 2.

### Art-Related Grants, Awards and Scholarships

- 2011 Travel Grant and invitation to The Institute of Science in Society conference, London, UK.
- 2009 Travel Grant and invitation by the British Council to "Einstein and Picasso" conference, Dortmund, Germany.
- 2008 *Big Rock Garden Sculpture Exhibition*, Bellingham, Washington. *Juror's Choice Award* for *Unraveling Collagen*.
- 2007 *Sculpture Without Walls*, Moses Lake, Washington. *1st Prize* (People's Choice Award) for *Quantum Man* and *4th Prize* for *Sister (Warrior)*.  
*ACA Art in Crystallography Contest*. *Honorable Mention* for *Unraveling Collagen*.
- 2005 Regional Arts & Culture Council Professional Development Grant.
- 2004 The Scientist 2004 Art Contest, *1st Prize*.  
PNCA Sculpture Department Award.

Departmental Nomination for the International Sculpture Center Outstanding Student Award.

PNCA Merit Scholarship (*Shana Wheeler Memorial Scholarship*).

2003 Departmental Nomination for the International Sculpture Center Outstanding Student Award.

PNCA Merit Scholarship (*Shana Wheeler Memorial Scholarship*).

3rd Annual B.F.A. Exhibition, Best in Show for *Tall Alpha Helix*.

1997 Tenor Scholarship of the Edinburgh Royal Choral Union.

1991 *Jugend sieht Architektur* Painting Competition, *Special Prize*.

1990 *Jugend sieht Architektur* Painting Competition, *First Prize*.

**Invited Lectures/Public-Speaking Engagements**

- 2011 DePauw University ArtsFest (Greencastle, Indiana)  
MENSA Annual Gathering (Portland, Oregon)  
The Institute of Science in Society meeting (London, UK)
- 2010 Verein für Wissenschaftskommunikation *SciCo* (Vienna, Austria)  
Physics Department, Universität Wien (Vienna, Austria)  
Gymnasium Blankenese (Hamburg, Germany)
- 2008 Chemistry Department, Lewis & Clark College (Portland, Oregon)  
Trillium Charter School (Portland, Oregon)  
Biology Department, Portland State University (Portland, Oregon)
- 2007 Tryon Creek State Park (Portland, Oregon)
- 2006 *Wonderfest* (Stanford University, California)  
*Wonderfest* (UC Berkeley, California)  
Oregon College of Art and Craft (Portland, Oregon)  
*YLEM: Artists Using Science and Technology*, RX Gallery (San Francisco, California)  
Cascade SIGGRAPH Chapter (Portland, Oregon)  
Linus Pauling Center for Science, Peace and Health (Portland, Oregon)
- 2005 Pacific Northwest College of Art (Portland, Oregon)  
Art and Science Collaboration, Inc. (New York City, New York)  
Oregon College of Art and Craft (Portland, Oregon)  
Oregon College of Art and Craft (Portland, Oregon)
- 2004 Oregon College of Art and Craft (Portland, Oregon)
- 2003 Institute for Science, Engineering and Public Policy (Portland, Oregon)
- 2001 Biology Department, Portland State University (Portland, Oregon)  
Physics Department, Portland State University (Portland, Oregon)

**Professional Affiliations**

- Editorial board member, *Journal of Fine and Studio Art*.  
Member, Americans for the Arts.  
Member, German American Artists.  
Board member, Pacific Northwest Sculptors Association.  
Member, YLEM (Artists using Science and Technology).  
Member, Art & Science Collaboration, Inc.  
Member, International Sculpture Center.

Member, Leonardo/ISAST.

Member, Deutsche Physikalische Gesellschaft.

### Education

2001 - 2004 B.F.A. (Major: Sculpture), Pacific Northwest College of Art (PNCA), Portland, Oregon.

1993 - 2000 Physikdiplom (equivalent to a M.S. in physics, summa cum laude), Physics, Mathematics, Chemistry, and Philosophy. Free University Berlin (Germany), University of Vienna (Austria), and University of Edinburgh (UK).