UBB WORLD-CLASS CONTRIBUTIONS

Babeș-Bolyai University (Universitatea Babeș-Bolyai/UBB) of Cluj-Napoca, Transylvania, Romania has (1) the oldest academic/university tradition in Romania, (2) is the largest university of the country, and (3) is ranked on the first position in country between 2016-2019, in the University Metaranking, initiated by the Romanian Ministry of Education and Research in 2016. (i.e. by combining all the major international academic rankings of universities, as presented by IREG - https://ireg-observatory.org/en/). The British QS STAR audit has evaluated UBB in 2019 as an international university, with excellence in teaching and research (QS****).

The university tradition of UBB started in 1581 as Academia Claudiopolitana Societatis Jesu – by its Royal statute having the right to confer the university titles of baccalaureus/magister/doctor-, developed after 1698 until 1786 into Universitas Claudiopolitana, with teachings in Latin and later also in German. The Academia/Universitas Claudiopolitana was followed after 1786 by two institutions with a semiuniversity statute (e.g., offering training at baccalaureus/magister level, but not at doctor level): (a) the Surgical-Medical Institute and (b) the Academy of Law. Then, starting with 1872, the Royal Hungarian University of Cluj (Franz Joseph University/Cluj Hungarian University) was founded, with teaching in Hungarian, which included the two semiuniversity institutions already existing in Cluj (the main part of the academic tradition of this Hungarian period is shared with the current University of Szeged in Hungary). In 1919, the Hungarian university was transformed/followed by the Romanian University of Cluj (King Ferdinand University of Cluj/Cluj Romanian University). The Romanian and the Hungarian universities in Cluj – derived from Franz Joseph University and King Ferdinand University - were united in 1959 under the name of Babeș-Bolyai University. Victor Babes was a famous Romanian physician/biologist, one of the founders of microbiology and a professor at the King Ferdinand University of Cluj. The name Bolyai is related to the famous Hungarian family of mathematicians from Transylvania (János and Farkas Bolyai). UBB is today a complex multicultural university - with three lines of study in Romanian/Hungarian/German (and programs in English, French, Italian, Chinese, Japanese etc.) -, having programs from art/humanities, social sciences, life and natural sciences, mathematics/computer sciences to engineering and technology.

Throughout its old academic tradition, UBB had numerous fundamental academic contributions, both at national and international level, illustrated among others by quality publications (e.g., highly cited papers, hot papers), top scientists (e.g., highly cited researchers), and innovations (e.g., patents, products/services to society). Also, many UBB professors and/or alumni served key leadership positions in country and abroad (e.g., presidents, prime-ministers, ministers, CEO of major national/international organizations etc.). Finally, UBB professors and alumni have world-class contributions in sports (e.g., Olympic medals, world champions, trainers of champions) and arts (e.g., major recognition in the most important global film festivals like Berlin, Cannes, Locarno, Karlovy Vary, and winners of the Academy Awards - Oscars). Additionally, due to its academic prestige, UBB attracted stellar international scientists/academics and leaders (e.g., emperors, kings, presidents, religious leaders) as adjunct (e.g., adjunct professor) or honorary members (i.e., Doctor Honoris Causa) of the UBB community.

As follows, we feature some of the members of UBB community, who have made global academic and/or leadership contributions world-wide. We organize the selection on professors/alumni by the academic period: (1) Academia/Universitas Claudiopolitana, (2) Cluj Hungarian University, and (3) Cluj Romanian University; we do not yet include here UBB professor/researchers or alumni (after 1959) who are still active or alive. However, the selection for honorary members is focused on the more recent period (after 1959), but we have also included two selections from the past: Henri Poincare for the Hungarian period and Emmanuel de Martonne for the Romanian period.
I. Academics with world-class scientific contributions (selection)

**Jakub Wujek/Vangrovitius (Academia/Universitas Claudiopolitana - Rector)**
Famous Jesuit theologian (the translator of Bible into Polish – the "Wujek Bible")

**Maximillian Hell (Academia/Universitas Claudiopolitana)**
One of the most important astronomers of the 18\textsuperscript{th} century/director of Vienna’s Observatory

**István Apáthy (Cluj Hungarian University - Rector)**
Zoologist and histologist, innovator in microscope techniques (Nobel Prize nominee in 1904)

**Gyula Farkas (Cluj Hungarian University - Rector)**
Mathematician and physicist, with key contributions in mathematical optimization (see Farkas’ lemma) and thermodynamic

**Alfréd Haar (Cluj Hungarian University)**
Mathematician; the Haar measure, Haar wavelet, and Haar transform are named in his honor

**Hugo von Meltzl (Cluj Hungarian University - Rector)**
Professor of German history and language, one of the founders of comparative literature

**Frigyes Riesz (Cluj Hungarian University)**
Mathematician, known world-wide for Riesz representation theorem, Riesz-Fischer theorem, Riesz space, Riesz’s lemma, and Radon-Riesz property
Victor Babeș (Cluj Romanian University)
Physician, one of the founders of microbiology (Nobel Prize nominee in 1924)

Augustin Maior (Cluj Romanian University)
Physicist, one of the key contributors to multiple telephony (the coordinator of Hermann Oberth’s graduation thesis - one of the founders of rocketry and astronautics)

Dimitrie Pompeiu (Cluj Romanian University)
Mathematician, known for his concept of areolar derivative and the definition of Hausdorff-Pompeiu distance

Emil Racoviță (Cluj Romanian University - Rector)
Biologist, the founder of biospeology, Antarctica explorer, the first biologist to study arctic life
## II. Alumni with world-class academic contributions (selection)

<table>
<thead>
<tr>
<th>Name</th>
<th>University</th>
<th>Contribution</th>
</tr>
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<tbody>
<tr>
<td>Péter Pázmány</td>
<td>Academia/Universitas Claudiopolitana</td>
<td>Famous Jesuit theologian, Cardinal, one of the creators of the Hungarian literary language</td>
</tr>
<tr>
<td>Jenő Janovics</td>
<td>Cluj Hungarian University</td>
<td>Actor and film director, the founder of Corvin Film Studio, influencing Alexander Korda and Michael Curtiz, who were working in the Studio</td>
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<tr>
<td>Karl Polanyi</td>
<td>Cluj Hungarian University</td>
<td>One of the 20th century canonical thinkers in political economy</td>
</tr>
<tr>
<td>Hermann Oberth</td>
<td>Cluj Romanian University</td>
<td>One of the founders of rocketry and astronautics</td>
</tr>
<tr>
<td>Erwin Wittstock</td>
<td>Cluj Romanian University</td>
<td>Influential writer, Doctor Honoris Causa of the University of Heidelberg</td>
</tr>
<tr>
<td>Abraham Wald</td>
<td>Cluj Romanian University</td>
<td>One of the founders of the field of statistical sequential analysis</td>
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III. Honorary members of the UBB academic community (i.e., Doctor Honoris Causa), with global scientific and/or leadership contributions (selection)

- **SCIENCE**

  Günter Blobel  
  Nobel Prize in Physiology – 1999

  Richard Ernst  
  Nobel Prize in Chemistry – 1991

  Stefan W. Hell  
  Nobel Prize in Chemistry – 2014

  Sir Richard Timothy Hunt  
  Nobel Prize in Physiology – 2001

  Jean-Marie Lehn  
  Nobel Prize in Chemistry – 1987

  Mario Vargas Llosa  
  Nobel Prize in Literature – 2010

  Eric Maskin  
  Nobel Prize in Economic Sciences – 2007
Emil Palade
Nobel Prize in Medicine – 1974

Emmanuel de Martonne
A leading international geographer, one of the founding fathers of geomorphology

Henri Poincaré
Famous mathematician, well known for Poincaré conjecture

Jan Tinbergen
Nobel Prize in Economic Sciences-1969

Ahmed Zewail
Nobel prize in Chemistry – 1999
- GLOBAL LEADERSHIP

  Angela Merkel, German Chancellor

  Bartholomew I of Constantinople, the Ecumenical Patriarch

  Charles, Prince of Wales

  Joseph Ratzinger, Pope Benedict XVI