Journal of Diabetes Investigation
—Footsteps to Open Access and Its Development after That—
—オープン・アクセスへの軌跡とその後の発展—

NIGISHI HOTTA
Editor-in-Chief
Japan Organization of Occupational Health and Safety
Chubu Rosai Hospital
Numbers of people with diabetes worldwide in 2017/2045

Worldwide
(20-79 years)
IDF Diabetes Atlas 8th Edition (revised)
We should build evidence for Asians with diabetes by ourselves.

- **Europe**: 58 mio.
- **North, South & Central America**: 72 mio.
- **Asia**: 265 mio.

**EASD**: European Association for the Study of Diabetes

**AASD**: Asian Association for the Study of Diabetes

**ADA**: American Diabetes Association
History of AASD

2009 Establishment
5 endorsed organizations

2012 Corporatization

2013 AASD Awards

2015 Fund

2018-
22 organizations
6 endorsed organizations

2013 - : 3 Awards
2017 : added 2 new Awards
2018 - : 5 Awards
Endorsed by

- Chinese Diabetes Society
- Chinese Taipei Diabetes Association
- Hong Kong Society of Endocrinology, Metabolism and Reproduction
- Japan Association for Diabetes Education and Care
- Japan Diabetes Society
- Korean Diabetes Association

Affiliated Societies / Associations

- Cambodian Diabetes Association
- Diabetes Association of Thailand
- Diabetes Hong Kong
- Diabetes India
- Diabetes Society of Singapore
- Endocrine Society of Sri Lanka
- Indonesian Diabetes Association
- Kazakh Society for Study of Diabetes
- Macau Diabetes Association
- Malaysian Diabetes Association
- Malaysian Diabetes Educators Society
- Mongolian Diabetes Association
- Philippine Diabetes Association
- Myanmar Endocrinology and Metabolism Society
- Taiwanese Association of Diabetes Educators
- Vietnamese Association of Diabetes and Endocrinology
Annual Scientific Meeting

2009  Osaka
2010  Okayama
2011  Beijing/China
2012  Kyoto
2013  Seoul/Korea
2014  Singapore
2015  Hong Kong
2016  Taipei
2017  Nagoya
2018  Kuala Lumpur/Malaysia
2019  Sendai *The 10th Anniversary*
2020  Nov. 22-25, Shanghai/China,
       in conjunction with IDF/WPR congress
Welcome Message

On behalf of the Organizing Committee, it is our great pleasure to invite you to the 9th IDF-WPR Congress and the 4th AASD Scientific Meeting to be jointly held in Kyoto, Japan, November 24-27, 2012.

The global epidemic of diabetes is a most serious medical and social problem in all parts of the world including the Western Pacific Region, which has the highest prevalence of diabetes, heterogeneous pathophysiology, and diverse ethnicities and cultures. To investigate the diversity of diabetes in the Western Pacific Region and to provide a basis for science-guided diabetes care and education, the Congress will be devoted to discussions in three main areas, research, clinical and basic, and diabetes education and care, all of which are crucial for us and our colleagues who battle diabetes.

Kyoto, the city and area, fascinates visitors from all over the world. It is the center of an accessible historic and vibrant area of many colleges and universities and is a front of Japanese culture and cuisine. The IDF-WPR Congress and the AASD Scientific Meeting will offer much to learn and will provide many fine memories. We look forward to welcoming you Kyoto, the heart of western Japan.

Sincerely yours,

[Images of two men]
The changes of online usage, impact factor and printed copies before/after the introduction of open access
The changes of online usage from 2009 to 2018

Article Downloads Trend

1: United States
2: Japan
3: China
4: India
5: United Kingdom
6: Canada
7: Australia
8: South Korea
9: Indonesia
10: Russian Federation
11: Others
The rapid changes of the environment surrounding JDI after the introduction of “Open access”

- The rapid rises of the introduction on some Websites about the papers from JDI.
- The dramatic increases of article downloads in year dependent manner.
- The gradual increases of cites from the papers of JDI in many journals.
- The good progress with high impact factor as all their results.
- The submission of the papers with high quality to JDI is gradually increasing
The concept of direction which path JDI is going to take

- A source sending out updatable information of diabetes circumstances in Asia.

- A tool acquiring and keeping the latest knowledge of diabetes: Review article, Commentary Article and JDI UPDATES.

- The publication in consideration for the appearance of journal including the front cover and the page layout at the launch※.
Molecular clock as a regulator of β-cell function

INTRODUCTION
Type 2 diabetes mellitus is characterized by the loss of β-cell function and mass, resulting from interactions between genetic predisposition and various environmental factors. One environmental condition identified as a risk factor for type 2 diabetes mellitus is circadian rhythm disruption, which is induced by binding protein 4 (E4bp4) messenger RNA levels were increased by 59% at Zeitgeber Time 12. Notably, similar alterations were observed with chemically-induced ER stress in vitro experiments using MIN6 cells.

Keywords
Genetic engineering, islet transplantation, stem cell

Correspondence
Timothy J Kieffer
Tel: +1-604-822-2156
E-mail address: tjkieffer@ucalgary.ca

ABSTRACT
Diabetes is characterized by elevated levels of blood glucose as a result of insufficient production of insulin from loss or dysfunction of pancreatic islet β-cells. Here, we review several approaches to replacing β-cells that were recently discussed at a symposium held in Kyoto, Japan. Transplantation of donor human islets can effectively treat diabetes and eliminate the need for insulin injections, supporting research aimed at identifying abundant supplies of cells. Studies showing the feasibility of producing mouse islets in rats support the concept of generation rules with human normics that can serve as donors of human islets.

β-cell replacement strategies for diabetes

Timothy J Kieffer1, Knut Wolfger,2,3 Kenji Ito,4,5,6 Daikuku Yabe,7,8 Nobuya Inagaki9

1Department of Cellular & Physiological Sciences, Life Sciences Institute, University of British Columbia, Vancouver, British Columbia, Canada; 2Center for Stem Cell Research and Application (CIRA), Nippon Center for Advanced Research, and 3Department of Diabetes, Endocrinology and Nutrition, Graduate School of Medicine, Kyoto University, Kyoto, Japan

Keywords
Genetic engineering, islet transplantation, stem cell

Correspondence
Timothy J Kieffer
Tel: +1-604-822-2156
E-mail address: tjkieffer@ucalgary.ca

ABSTRACT
Diabetes is characterized by elevated levels of blood glucose as a result of insufficient production of insulin from loss or dysfunction of pancreatic islet β-cells. Here, we review several approaches to replacing β-cells that were recently discussed at a symposium held in Kyoto, Japan. Transplantation of donor human islets can effectively treat diabetes and eliminate the need for insulin injections, supporting research aimed at identifying abundant supplies of cells. Studies showing the feasibility of producing mouse islets in rats support the concept of generation rules with human normics that can serve as donors of human islets.

Short-term changes in pancreatic α-cell function after the onset of fulminant type 1 diabetes

A 25-year-old unconscious woman was transferred to Center Hospital, National Center for Global Health and Medicine, Tokyo, Japan. She had ketonuria with blood glucose levels, arterial pH, and HCO3− levels of 843 mg/dL, 6.94 and injection to a continuous intravenous infusion 24 h before the AST, and was stopped 1 h before the AST. A total of 30 g of arginine was intravenously administered over a 30-min period, and blood samples were collected before and the repeat AST, although glucose elevation was similar to that at diabetes onset, the serum C-peptide response was completely absent. Interestingly, the peak plasma glucagon level decreased from 415 to 295 pg/mL, plasma glucagon.

Japanese Clinical Practice Guideline for Diabetes 2016

Masakazu Haneda1, Mitsuhiro Noda2, Hideki Origasa, Hiroshi Noto, Daisuke Yabe, Yukihiro Fujita, Atsushi Goto, Tatsuya Kondo, Eichi Araki

1Aichi Medical University, Aichi, Japan; 2Sports Medical University, Satara, India; 3University of Toyama, Toyama, Japan; 4St Luke’s International Hospital, Tokyo, Japan; 5Department of Diabetes, Endocrinology and Nutrition, Kyoto University Graduate School of Medicine, Kyoto, Japan; 6Center for Public Health Sciences, National Cancer Center, Tokyo, Japan; and 7Department of Metabolism, Kumamoto University, Kumamoto, Japan
# Submission turnaround time on JDI

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th></th>
<th>2017</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st decision</td>
<td>final decision</td>
<td>acceptance</td>
<td>1st decision</td>
</tr>
<tr>
<td>Voluntary</td>
<td>41</td>
<td>68</td>
<td>118</td>
<td>39</td>
</tr>
<tr>
<td>Original Article</td>
<td>43</td>
<td>72</td>
<td>126</td>
<td>41</td>
</tr>
<tr>
<td>Others</td>
<td>38</td>
<td>64</td>
<td>109</td>
<td>30</td>
</tr>
<tr>
<td>Invited</td>
<td>7</td>
<td>21</td>
<td>21</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th></th>
<th>2019 (as of 30 Apr 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st decision</td>
<td>final decision</td>
<td>acceptance</td>
</tr>
<tr>
<td>Voluntary</td>
<td>41</td>
<td>74</td>
<td>132</td>
</tr>
<tr>
<td>Original Article</td>
<td>42</td>
<td>76</td>
<td>141</td>
</tr>
<tr>
<td>Others</td>
<td>34</td>
<td>66</td>
<td>104</td>
</tr>
<tr>
<td>Invited</td>
<td>7</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>

※ Date in 2019 is tentative as of 30 Apr 2019
### No. of submission(S)/acceptance(A) by countries/regions

<table>
<thead>
<tr>
<th>Countries /regions</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S</td>
<td>A</td>
<td>A/S</td>
</tr>
<tr>
<td>Japan</td>
<td>114</td>
<td>56</td>
<td>49%</td>
</tr>
<tr>
<td>China</td>
<td>134</td>
<td>35</td>
<td>27%</td>
</tr>
<tr>
<td>Korea</td>
<td>9</td>
<td>3</td>
<td>33%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>3</td>
<td>1</td>
<td>33%</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>4</td>
<td>50%</td>
</tr>
<tr>
<td>Except Asia</td>
<td>40</td>
<td>10</td>
<td>26%</td>
</tr>
<tr>
<td>合計</td>
<td>308</td>
<td>109</td>
<td>36%</td>
</tr>
</tbody>
</table>

Main countries which submit are Japan and China.
## Published Articles by Manuscript Types: (2016-2019)

<table>
<thead>
<tr>
<th>Manuscript Type</th>
<th>2016 (vol.7,issues1-6)</th>
<th>2017 (vol.8,issues1-6)</th>
<th>2018 (vol.9,issues1-6)</th>
<th>2019 (vol.10,issues1-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Article</td>
<td>74</td>
<td>59</td>
<td>110</td>
<td>66</td>
</tr>
<tr>
<td>Short Report</td>
<td>2</td>
<td>9</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Clinical Trial</td>
<td>16</td>
<td>6</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Case Report</td>
<td>5</td>
<td>3</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Letter to the Editor</td>
<td>6</td>
<td>4</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Review</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>Mini Review</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Commentary</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Editorial</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Special Report</td>
<td>3</td>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total (No. of articles)</strong></td>
<td><strong>133</strong></td>
<td><strong>109</strong></td>
<td><strong>187</strong></td>
<td><strong>109</strong></td>
</tr>
<tr>
<td>Total pages excl.</td>
<td>934</td>
<td>811</td>
<td>1400</td>
<td>875</td>
</tr>
</tbody>
</table>

supplements
The actual situation of tasks for Editor-in-Chief of JDI

1. Peer review management
   ● The selection of responsible Associate Editor when a manuscript is submitted to JDI
   ● Reading rejected manuscripts and editing comments to an author written by reviewers and Associate Editor.
   ● Checking references so that they are cited in a correct manner, including citations of Japanese literatures.

2. Production
   ● Reviewing original manuscript and galley proofs of “Editorial”, “Review”, “Commentary” and “JDI UPDATES” Articles.

3. Sales
   ● Looking for every opportunities to commission advertisements.

4. Development
   ● Searching for papers suitable for Commentary Articles.
   ● The selection of the writers for Review and Commentary articles, inviting them to write for JDI.
   ● Sharing the good news with authors whenever their articles were covered in social media※.
   ● Continuously looking for innovative ways for author and readers to actively engaged with JDI.

※1) DiabetesPro SmartBrief, 2) MDLinx Endocrinology/Diabetes
Requests from the Editor-in-Chief to reviewers and Associate Editors

- Reviewers need to give constructive comments, with the best interests of the author in mind, regardless of whether the manuscript is accepted by JDI or not.

- Comments should be specific instructions.

- Educational consideration should be given.

- It would be better for Associate Editor and Editor-In-Chief to give some constructive opinion and/or criticism in a case of “rejection”.

The factors contributing to the progress of JDI

- The course of JDI is almost the same direction among the members of Editorial Board, especially Japanese crews.
- They want to develop a journal ranking with the top journals in the world, like Diabetes / Diabetes Care, the official journals of American Diabetes Association (ADA) and Diabetologia, an official journal of European Association for the Study of Diabetes (EASD).
- We have to remember our progress as one of the achievement by our publisher, Wiley Japan. There was positive support from our publisher to us all the time. It is one of the important factors for our development during the last decade.
- Of course, we cannot forget the strong supportive activities by the submission of many authors’ impressive and fruitful papers.
教育セミナー
「AASD and JDI : 英文投稿のすすめ」
5月26日 (土) 7:30 ~ 8:20 am
第7会場 東京国際フォーラム
D棟 5Fホール D5

座長：堀田 饒 先生, JDI Editor-In-Chief
労働者健康安全機構 中部ろうさい病院

演者：清野 裕 先生, AASD Chairman
関西電力病院 / 関西電力医学研究所
稲垣 暢也 先生, JDI Assistant Editorial Board
京都大学大学院医学研究科 糖尿病・内分泌・栄養内科学

AASD (アジア糖尿病学会) / JDI 共催
<table>
<thead>
<tr>
<th>Rank</th>
<th>Author</th>
<th>Article Title</th>
<th>Genre</th>
<th>Volume</th>
<th>Issue</th>
<th>No. of Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ogawa W et al.</td>
<td>Euglycemic diabetic ketoacidosis induced by SGLT2 inhibitors: possible mechanism and contributing factors.</td>
<td>Ed.</td>
<td>7</td>
<td>2</td>
<td>19,981</td>
</tr>
<tr>
<td>2</td>
<td>Seino Y et al.</td>
<td>GIP and GLP-1, the two incretin hormones: Similarities and differences.</td>
<td>Rev.</td>
<td>1</td>
<td>1~2</td>
<td>18,016</td>
</tr>
<tr>
<td>4</td>
<td>Harada N et al.</td>
<td>Role of sodium-glucose transporters in glucose uptake of the intestine and kidney.</td>
<td>Comm.</td>
<td>3</td>
<td>4</td>
<td>14,065</td>
</tr>
<tr>
<td>5</td>
<td>Seino Y et al.</td>
<td>Glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1: Incretin actions beyond the pancreas.</td>
<td>Rev.</td>
<td>4</td>
<td>2</td>
<td>13,374</td>
</tr>
<tr>
<td>6</td>
<td>Committee of the Japan Diabetes Society on the Diagnostic Criteria of Diabetes Mellitus</td>
<td>Report of the Committee on the Classification and Diagnostic Criteria of Diabetes Mellitus.</td>
<td>Sp.R.</td>
<td>1</td>
<td>5</td>
<td>12,048</td>
</tr>
<tr>
<td>7</td>
<td>Skovsø S et al.</td>
<td>Modeling type 2 diabetes in rats using high fat diet and streptozotocin.</td>
<td>Rev.</td>
<td>5</td>
<td>4</td>
<td>11,842</td>
</tr>
<tr>
<td>8</td>
<td>Hur KY et al.</td>
<td>New mechanisms of metformin action: Focusing on mitochondria and the gut.</td>
<td>Rev.</td>
<td>6</td>
<td>6</td>
<td>10,622</td>
</tr>
<tr>
<td>9</td>
<td>Yagihashi S et al.</td>
<td>Mechanism of diabetic neuropathy: Where are we now and where to go?</td>
<td>Rev.</td>
<td>2</td>
<td>1</td>
<td>7,810</td>
</tr>
<tr>
<td>10</td>
<td>Kashiwagi A et al.</td>
<td>International clinical harmonization of glycated hemoglobin in Japan: From Japan Diabetes Society to National Glycohemoglobin Standardization Program values.</td>
<td>Comm.</td>
<td>3</td>
<td>1</td>
<td>7,414</td>
</tr>
</tbody>
</table>

## Most downloaded articles of J Diabetes Investigation
( up to March 2019 from 2017 )

<table>
<thead>
<tr>
<th>Rank</th>
<th>Author</th>
<th>Article Title</th>
<th>Genre</th>
<th>Volume</th>
<th>Issue</th>
<th>No. of Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kanto K et al.</td>
<td>Effects of dosage and dosing frequency on the efficacy and safety of high-dose metformin in Japanese patients with type 2 diabetes mellitus.</td>
<td>Org.</td>
<td>9</td>
<td>3</td>
<td>3,831</td>
</tr>
<tr>
<td>3</td>
<td>Seino Y et al.</td>
<td>Sodium-glucose cotransporter-2 inhibitor luseogliflozin added to glucagon-like peptide 1 receptor agonist liraglutide improves glycemic control with bodyweight and fat mass reductions in Japanese patients with type 2 diabetes: A 52-week, open-label, single-arm study.</td>
<td>Org.</td>
<td>9</td>
<td>2</td>
<td>2,825</td>
</tr>
<tr>
<td>4</td>
<td>Stino AM et al.</td>
<td>Peripheral neuropathy in prediabetes and the metabolic syndrome.</td>
<td>Rev.</td>
<td>8</td>
<td>5</td>
<td>2,615</td>
</tr>
<tr>
<td>5</td>
<td>Kadowaki T et al.</td>
<td>Empagliflozin and kidney outcomes in Asian patients with type 2 diabetes and established cardiovascular disease: Results from the EMPA-REG OUTCOME® trial.</td>
<td>Org.</td>
<td>10</td>
<td>3</td>
<td>2,479</td>
</tr>
<tr>
<td>6</td>
<td>Liu H et al.</td>
<td>Role of gut microbiota, bile acids and their cross-talk in the effects of bariatric surgery on obesity and type 2 diabetes.</td>
<td>Rev.</td>
<td>9</td>
<td>1</td>
<td>2,428</td>
</tr>
<tr>
<td>7</td>
<td>AW W et al.</td>
<td>Understanding the role of the gut ecosystem in diabetes mellitus.</td>
<td>Rev.</td>
<td>9</td>
<td>1</td>
<td>2,428</td>
</tr>
<tr>
<td>8</td>
<td>Kieffer TJ et al.</td>
<td>Beta-cell replacement strategies for diabetes.</td>
<td>Rev.</td>
<td>9</td>
<td>3</td>
<td>2,213</td>
</tr>
<tr>
<td>9</td>
<td>Kondo Y et al.</td>
<td>iPSC technology-based regenerative therapy for diabetes.</td>
<td>Rev.</td>
<td>9</td>
<td>2</td>
<td>2,149</td>
</tr>
<tr>
<td>10</td>
<td>Kashiwagi A et al.</td>
<td>Metabolic and hemodynamic effects of sodium-dependent glucose cotransporter 2 inhibitors on cardio-renal protection in the treatment of patients with type 2 diabetes mellitus.</td>
<td>Rev.</td>
<td>8</td>
<td>4</td>
<td>1,712</td>
</tr>
</tbody>
</table>

## 2018 Impact Factor:
**Subject ranking of JDI in Endocrinology and Metabolism (245 journals)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Journal Title</th>
<th>Impact Factor</th>
<th>Total Cites</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nature Reviews Endocrinology</td>
<td>24,646</td>
<td>8,908</td>
</tr>
<tr>
<td>2</td>
<td>Lancet Diabetes &amp; Endocrinology</td>
<td>24,540</td>
<td>7,961</td>
</tr>
<tr>
<td>3</td>
<td>Cell Metabolism</td>
<td>22,415</td>
<td>34,829</td>
</tr>
<tr>
<td>4</td>
<td>Diabetes Care</td>
<td>15,270</td>
<td>71,305</td>
</tr>
<tr>
<td>5</td>
<td>Journal of Pineal Research</td>
<td>15,221</td>
<td>10,695</td>
</tr>
<tr>
<td>11</td>
<td>Diabetes</td>
<td>7,189</td>
<td>53,532</td>
</tr>
<tr>
<td>12</td>
<td>Diabetologia</td>
<td>7,113</td>
<td>30,692</td>
</tr>
<tr>
<td>25</td>
<td>BMJ Open Diabetes Research &amp; Care</td>
<td>5,067</td>
<td>866</td>
</tr>
<tr>
<td>42</td>
<td>Journal of Diabetes Investigation (JDI)</td>
<td>3,902</td>
<td>2,564</td>
</tr>
</tbody>
</table>