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# Intellectual Property Strategy Network, Inc. (IPSN)

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## Its Concept

**Dr. Hiroshi Akimoto**  
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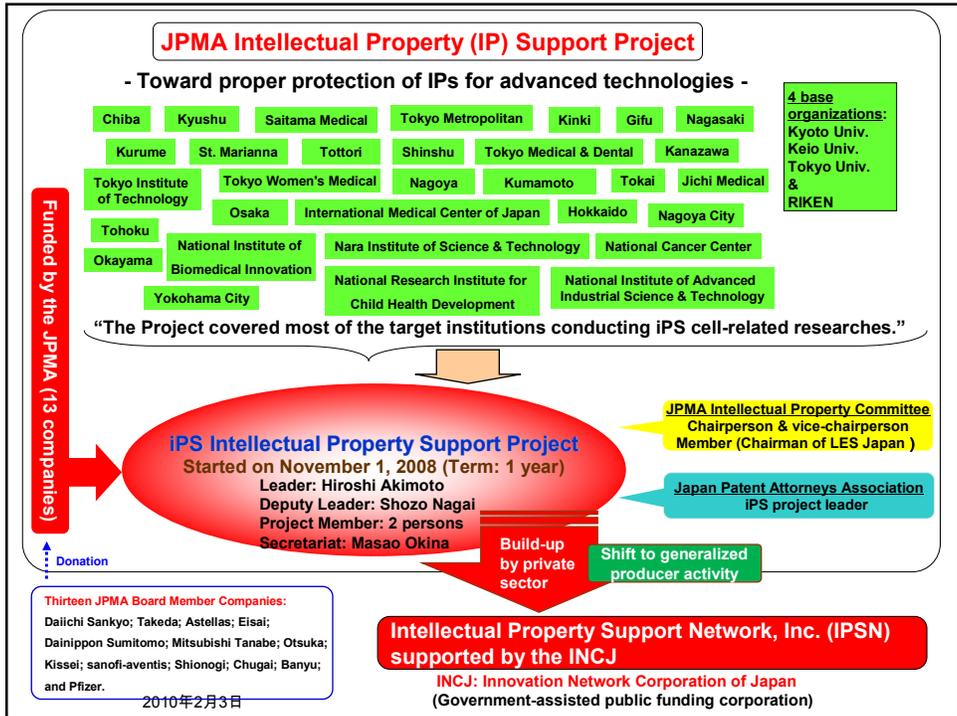
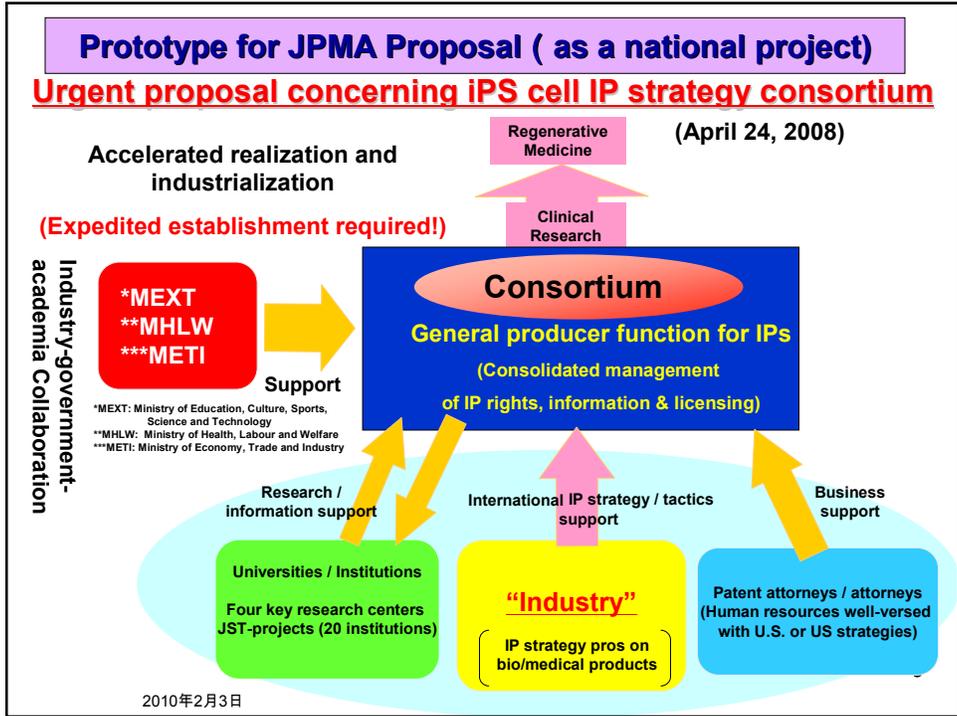
2010年2月3日

### [Objectives of the Company]

One of the objectives of this company is to make assistance to a Japanese national interest through intellectual property consultation for universities, ventures and other similar entities in order to make their levels better in that aspect; and our activity would cover not only the western countries but also the Asian countries under similar circumstances as Japan is now through strong collaboration in discovering intellectual property sources for cutting-edge technologies, especially in the field of medicinal products and medical care. We would polish such intellectual properties into the ones with appropriate values and try to realize matching businesses between Japan and the rest of the world. We intend to build up the intellectual property of Japan as a globally feasible industry of the world.

Realization of “**Creative IP Industry**” originated in Japan!

2010年2月3日



### Assisting Research Institutes to Obtain Patent Rights in the United States

- The Japan Pharmaceutical Manufacturers Association created a project related to iPS cells -

Approximately half of the global pharmaceutical market belongs to the United States. It seems imperative to obtain patent rights in the United States in order to survive as a strong presence in the pharmaceutical industry. The Japan Pharmaceutical Manufacturers Association, consisting of major pharmaceutical companies in Japan, is now running a project to assist research institutes including universities to obtain patent rights in the United States for iPS cell-related research outcomes.

The Japan Pharmaceutical Manufacturers Association (JPMA) is now promoting a program called "IP Support Project" on its own to help out research institutes including universities in order to make iPS cell-related research outcomes into intellectual properties in the United States; the project is a one-year time-limited program started in November, 2008.

Pharmaceutical products are strongly protected by intellectual property strategies. Approximately half of the global pharmaceutical market belongs to the United States. It is imperative to obtain patent rights enforceable in the United States based on a proper intellectual property strategy in order to survive as a strong presence in the pharmaceutical industry. At the same time, well-performing pharmaceutical companies are also committed to a principle that "creating good drugs always serves to help improve people's health". This project was created based on these two factors.

#### Visiting research institutes to provide advices

The project supported by donations from 13 board member companies of the Japan Pharmaceuticals Association and consists of ex-employees of pharmaceutical companies. Based on the experiences in the pharmaceutical industry, the project members visit research institutes including universities where iPS cell-related researches are ongoing and explain the characteristics of the patent system and the way to consider intellectual property strategies fitted for the patent system in the United States in the presence of members from both research laboratories and intellectual property departments. The members also give advice on how to handle patent applications in the United States under confidentiality agreements when researchers are ready to explain the contents of their researches.

Concerning research institutes including universities that are conducting iPS-cell related researches, we select them referring to the information open to the public from various sources, introduce the project's activities to them and visit them one after another when the project's visits are accepted by them in advance. The institutes in the figure in this article are the ones we visited or of which visiting appointments were fixed on May 29, 2009; other candidate institutes for our visits have been contacted and visiting dates are being fixed by devoted project members. Our visits were welcomed in every research institutes we have visited so far. Researchers commented that "it was the first time they had ever heard of such stories"; even the members of intellectual property departments said that "they had never thought of patent strategies" utilizing the characteristics of the U.S. patent system in such a way as many pharmaceutical companies are taking advantage of provisional applications in the United States.

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Dr. Hiroshi Akimoto:  
Intellectual Property Adviser  
& IP Support Project Leader  
of the Japan Pharmaceutical  
Manufacturers Association;  
Chairman of the Intellectual  
Property Committee of the  
Japan Bioindustry  
Association; Guest professor  
in the graduate school of the  
University of Tokyo; and  
Specially Appointed  
Professor of Kyushu  
University

## [Summary of IP Support Project]

### Outcomes of the IP Support Project activities assisting universities and institutes that are conducting iPS cell-related researches in Japan:

- Research contents in the universities and institutes in Japan are never inferior to those conducted in the EU and the US.
- Most institutions consider IPs in Japan only; and they are all little conscious about global IP strategies, especially those in the US.
- Many institutions expressed strong interest in the way of thinking we proposed for global IP strategies.
- Almost all institutions are strongly requesting a follow-up program after the completion of this project.



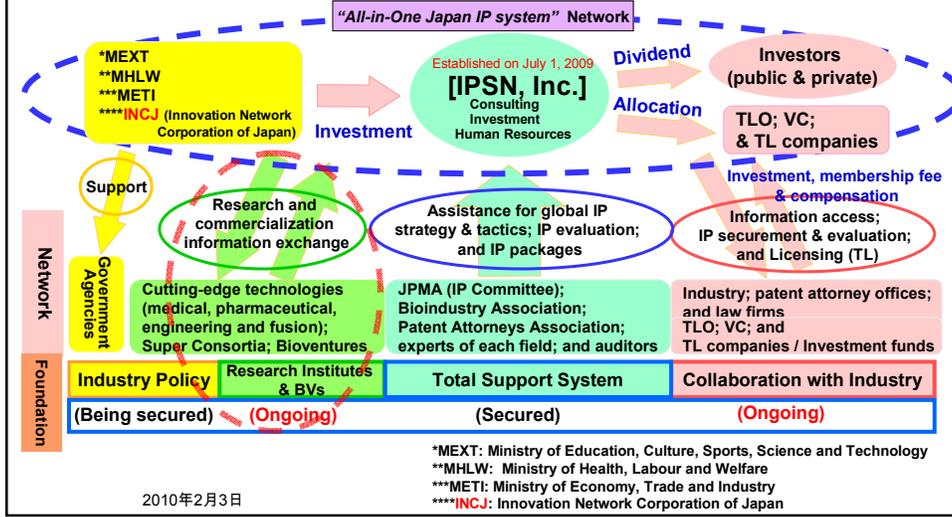
**Reconfirmed a strong demand for an IP strategy support system covering wide range of cutting-edge medical technologies**

## Concept of IPSN Business

**“Orchestration of wisdom” and “its commercialization”**

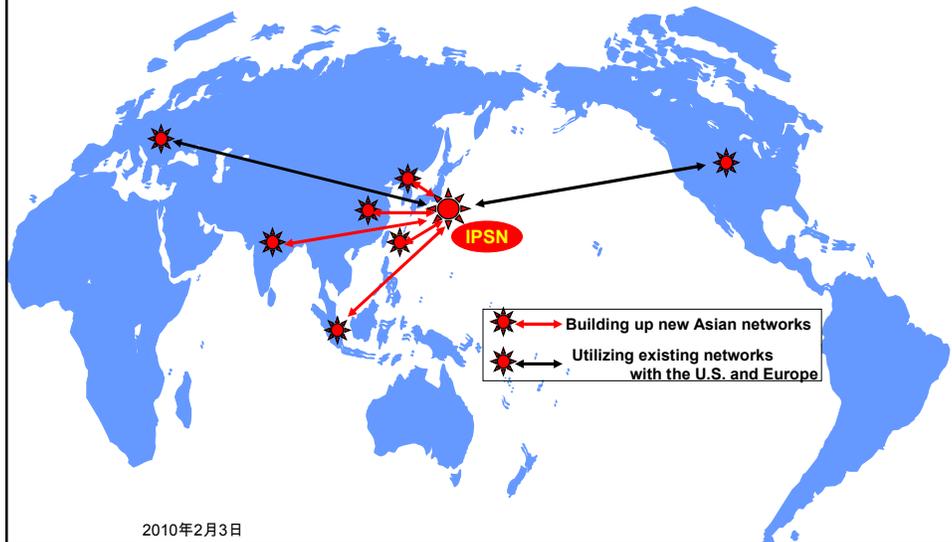
by an industry-government-academia **“All-in-One Japan IP system”**

Total Strategic Capability: Assistance for global IP strategy & tactics; IP evaluation; IP rights securement; information management; licensing; and commercialization



2010年2月3日

## Concept of IPSN Global Network



## Business Description (1)

- General Producer of Intellectual Property –  
(A refuge temple for IP businesses)

- (1) Diagnosis and evaluation of intellectual property and strategy
- (2) Intellectual property strategy support  
(Filing strategy / overseas filing strategy / patent prosecution strategy / patent management strategy / litigation strategy)
- (3) Licensing strategy support / representing clients for licensing negotiation
- (4) Offering a package of intellectual property rights of platform technologies and related technologies for commercialization  
(Package license)
- (5) Matching of needs between universities and business entities  
(offering zero-order information)
- (6) Licensing strategy support / representing clients for licensing negotiation

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## Business Description (2)

- General Producer of Intellectual Property –

- (7) Overseas strategy promotion for universities and ventures
  - Japan/US/Europe: Support for licensing strategy
  - Asia (China/India): Support for licensing and business strategy
- (8) Intellectual property diagnosis / evaluation and commercialization / revitalization / activation support for venture businesses
- (9) Initial investment to start ventures originating in academia
- (10) Direct investment in ventures
- (11) Lectures and seminars exclusive to members by external experts (twice a year)
- (12) Commercialization of IP businesses  
Purchase and commercialization of IPs, high-quality IP consultation, commercialization of human resources training, and strengthening cooperation with potential competitors

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## Business Description (3)

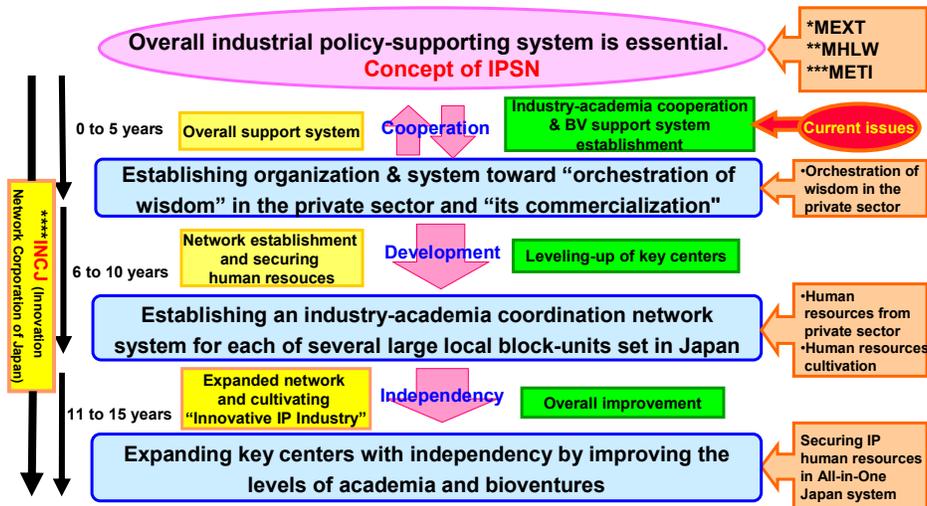
### - Cultivating & Securing Human Resources -

#### (13) Cultivating and securing human resources that can assume responsibilities of three-way strategies for R&D, IP and business!

- Cultivating human resources through OJT training  
A wider variety of knowledge and experience is provided in order to cultivate human resources (general producers) who constitute a team that assumes responsibilities of three-way strategies for R&D, IP and business in actual business practices.
- Delegation of human resources training from member enterprises and ventures  
Accepting workers on loan from members.  
=> Soliciting release of human resources produced in private sector
- **Making up for insufficient IP human resources in the life science field**  
=> Establish an industry-academia coordination network system for each of several large local block-units set in Japan by soliciting release of human resources  
=> Expanding key centers with independency and establishing the Network structure by further release of human resources

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### Establishing an "IP Strategic System" in the Life Science Field - Making up for insufficient IP human resources! -



\*MEXT: Ministry of Education, Culture, Sports, Science and Technology  
\*\*MHLW: Ministry of Health, Labour and Welfare  
\*\*\*METI: Ministry of Economy, Trade and Industry  
\*\*\*\*INCJ: Innovation Network Corporation of Japan

Seminar in the Nikkei BP Journal (Mar. 16, '09)

2010年2月3日

Seminar in the Journal

### Something to Say about Patent Strategies in Universities and Ventures Overcoming the Lack of Human Resources in Industry-Academia Collaboration Divisions

Dr. Hiroshi Akimoto, Guest Professor of the Graduate School, the University of Tokyo

Some people are crying out for utilizing patents in universities and venture; however, technology transfers are not necessarily proceeding very well. Reasons are that there are few experienced personnel from the pharmaceutical industry in industry-academia collaboration divisions. Dr. Hiroshi Akimoto, former executive director of Takeda Pharmaceutical Co., Ltd. and currently the intellectual property adviser of the Japan Pharmaceutical Manufacturers Association, pointed out issues there.

Patents have values only when they are utilized in the industry;  
Patent applications considering the situation in the industry and enterprises

It is impossible to carry out basic researches in private enterprises as universities and ventures do; therefore, business enterprises are expecting a lot from researches in universities and ventures. However, technology transfers to the private sector from universities and ventures are not proceeding very well.

Universities may have discontent that "business enterprises are not paying attention to many patents they filed" but blindly filing for patents is not recommended here. Patents or intellectual properties are considered of value when inventions are effectively utilized in industry. There must be a mismatch between universities and business enterprises arising from different perceptions of the situation.

There are several reasons why business enterprises do not show interests in patents from universities: the first question will be whether universities are conducting researches business enterprises may be interested in. Even when patents are obtained, it will be difficult to solicit technology transfer if such patents do not cover basic

technologies or specific fields that business enterprises are seeking for. For example, we once compared the numbers of publications and those of citations among the top universities in terms of numbers of international patent applications related to RNAi. As a result, the University of Massachusetts and Max Planck Institute published many pioneering papers and they also showed high numbers in terms of international patent applications, scientific papers and citations. In contrast, there are some cases of universities in Japan and in the United States where numbers of citations are low and, therefore, scientific impacts are also low in spite of their high numbers of international patent applications and scientific papers. The industry would not take notice of such inventions. In other words, high numbers of patents and papers are not of value but the important factor is their usefulness in the industry.

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Another issue here would be how to secure patent rights. For example, most of the enterprises are active globally and it is important for most of them how these rights are secured from a global point of view. Even when somewhat insufficient coverage of the patent rights is recognized, it would be permissible if such a deficient situation can be corrected by some countermeasures, however, there are many cases where any corrective measures are ineffective when the time limit to file a patent application is passed or presentations have been made already. Recently, even universities are conscious about global patent applications, however, global activities and general situations at hand for each enterprise vary from industry to industry. It is questionable whether patent applications are filed considering such circumstances of each industry.

Lack of human resources in industry-academia collaboration divisions or TLOs  
It may be necessary to consolidate them into several key blocks in Japan.

On the other hand, it will not be easy for university researchers to file patent applications taking industrial situations into consideration. Especially among university professors in Japan, there still exists mentality with which they value publications more than patent applications; therefore, they rarely conduct researches considering eventual patent applications which industries may look for or those which are adapted to industrial situations. Under these circumstances, industry-academia collaboration divisions or TLOs are created as organizations to compensate such a situation; however, I am afraid they do not seem to be functioning sufficiently.

The reason why industry-academia collaboration divisions or TLOs are not functioning very well comes down to the lack of human resources. There may be sufficient personnel in the fields of electronics or engineering but the lack of human resources is prominent in the fields of medicinal products or life science.

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Dr. Hiroshi Akimoto: Awarded with PhD from the University of Tokyo; joined Takeda Pharmaceutical Co., Ltd after a stint in the University of Pennsylvania; reached finally the position of executive director and concurrently the head of intellectual property department of the company; currently Intellectual Property Advisor of the Japan Pharmaceutical Manufacturers Association, Chairman of the Intellectual Property Committee of the Japan Bioindustry Association, Specially Appointed Professor of Kyushu University etc.

## Target Technological Areas and Research Institutes/Business Enterprises

### [Technical Areas]

- Cutting-edge medical technology (Super Consortia)
- Cutting-edge life science technology
- Cutting-edge fusion technology (medical & engineering collaboration)
- Cutting-edge technology in general (other than medical)

### [Target research institutes/business enterprises]

- Institutes, universities, pharmaceutical companies and the like in the cutting-edge (medical related) technology area (including institutes, universities and others intended for the IP support project of the JPMA)
- Ventures/investment funds involved in cutting-edge (medical) technology in the life science field: Innovation Network Corporation of Japan (INCJ) and Small and Medium-sized Enterprise Investment Business Corporation
- Ventures and business enterprises of cutting-edge technology outside of life science field

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## Difference from Intellectual Ventures

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- IPSN is different from IVs since it gives advice on global IP strategies and tactics when universities and BVs (including BVs originated in universities) in Japan file patent applications, and supports to improve the quality of IPs and help them to obtain IPs of real value.
- IPSN is different from IVs since it does not own patents in principle but operates with nonexclusive licenses or limited-time exclusive licenses given from the patent owners. Patents for licensing will strictly be owned by universities or other similar institutions.
- IPSN is different from IVs since it conducts licensing and other business negotiations only through requests from universities or other institutions but respects their independency and never interferes with their own intentions to negotiate themselves.
- IPSN is expected to have a complementary role with universities and other institutions so that wide-ranging negotiations for licensing will become possible and the success rates will be higher.
- Licensing of platform technologies often encounters difficulty in case it is not a package license but the features of our IPSN will help to create a packaged license with values and the success rates will be higher than those achieved by IVs.

2010年2月3日

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## Social Meaning Derived from IPSN Activity

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1. Increased values of IPs in universities and ventures in Japan
2. Increased success rates of commercialization in cutting-edge technology field by strengthening IP portfolios in universities and ventures in Japan
3. IP personnel cultivated and secured in Japan
4. Technology transfer promotion based on a global network that has a particular focus on Asia
5. **“Creative IP industry”** realized and established in Japan

2010年2月3日