

Who am I?

What can I do?

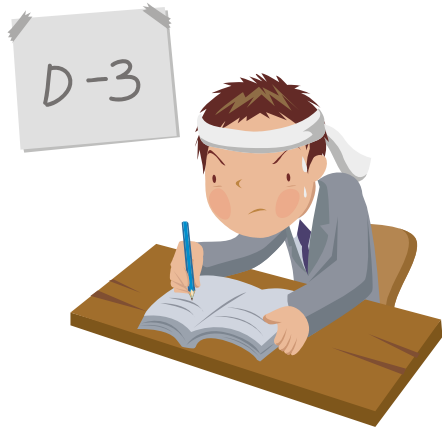
How do I live?

- 1. Why did you take a doctorate in foreign nation ?**
- 2. Why did you select not America and Europe but Japan as destination to study abroad ?**

The figures, photos and moving images with ‡ marks attached belong to their copyright holders. Reusing or reproducing them is prohibited unless permission is obtained directly from such copyright holders.

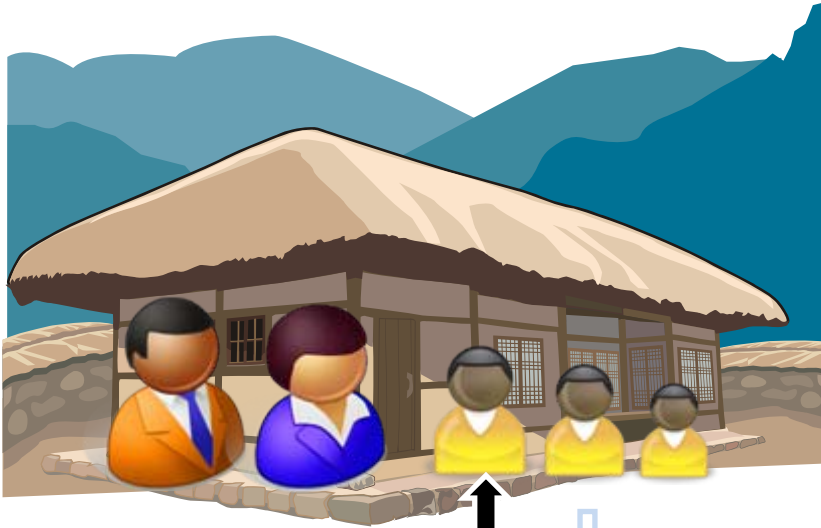
Who am I?

→ The Answer is variable.



What can I do?

→ No Answer



Excellent Student

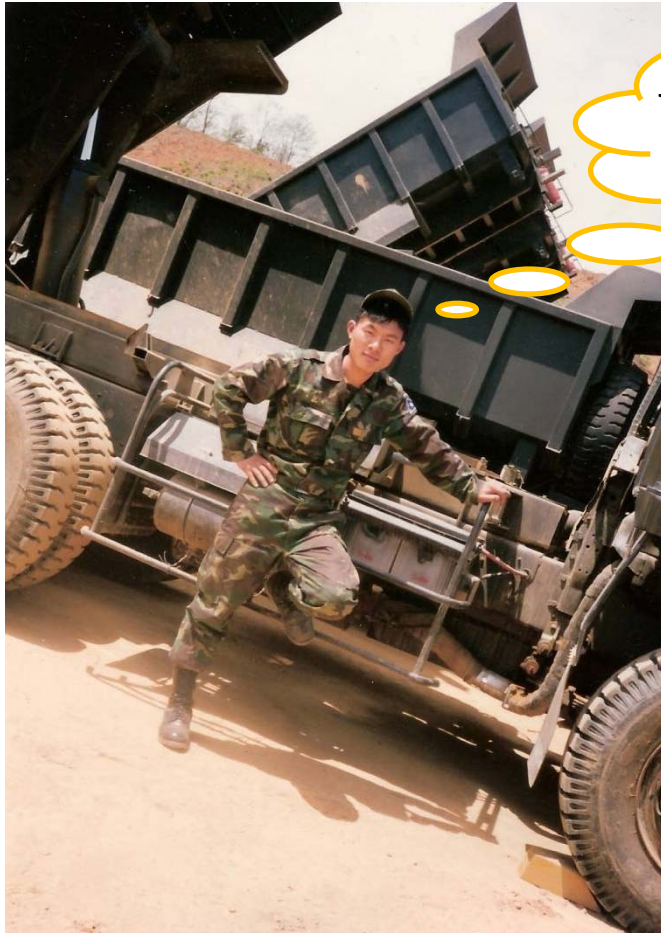
Kyoungpook National University



What can I do?

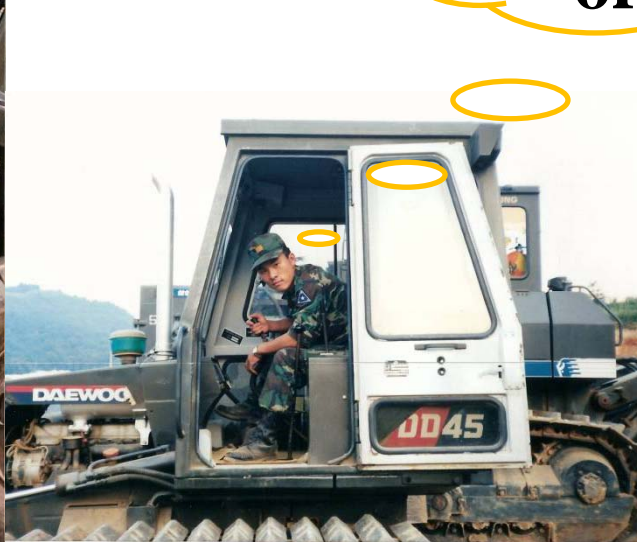
→ No Answer

1 year after, I entered army without dream.



What can I do?

I can do anything
or **nothing!**



What can I do?

→ What should I do?

1990.1		3	A-	1995.2		3	A0
1990.1		3	B0	1995.2		3	A-
1990.1		3	A+	1995.2		2	A+
1990.1		3	B-	1996.1		3	B+
1990.1		3	A-	1996.1		2	A0
1990.2		3	B+	1996.1		3	A0
1990.2		3	CO	1996.1		3	A-
1990.2		3	A-	1996.1		3	A-
1994.1		3	A-	1996.1		3	B+
1994.1		3	B0	1996.1		3	A+
1994.1		3	A-	1996.2		2	A0
1994.1		3	AO	1996.2		2	B0
1994.1		3	A-	1996.2		2	B-
1994.1		1	A-	1996.2		3	B-
1994.1		3	B+				
1994.2	transcript	3	B+				
1994.2		3	A0				
1994.2		3	A-				
1994.2		3	A0				
1994.2		1	B-				
1994.2		3	B+				
1994.2		3	A+				
1994.S		3	B+				
1994.S		3	C+				
1995.1		3	B0				
1995.1		3	A-				
1995.1		3	A0				
1995.1		3	B+				
1995.1		3	B-				
1995.1		1	B+				
1995.1		3	B+				
1995.2		3	A0				
1995.2		3	A-				
1995.2		3	A-				
1995.2		3	A+				
1995.2		3	A0				
1995.2		1	A-				

Noh Dongil



I likes Chemistry. But....

Readings in Elementary Japanese	3	DT
English 2	3	CO
	3	C+

What did I do?

I registered 6:40 AM class of language school of the University for 2 years to learn Japanese.

What happens?

6:40 AM is too early to take a class.

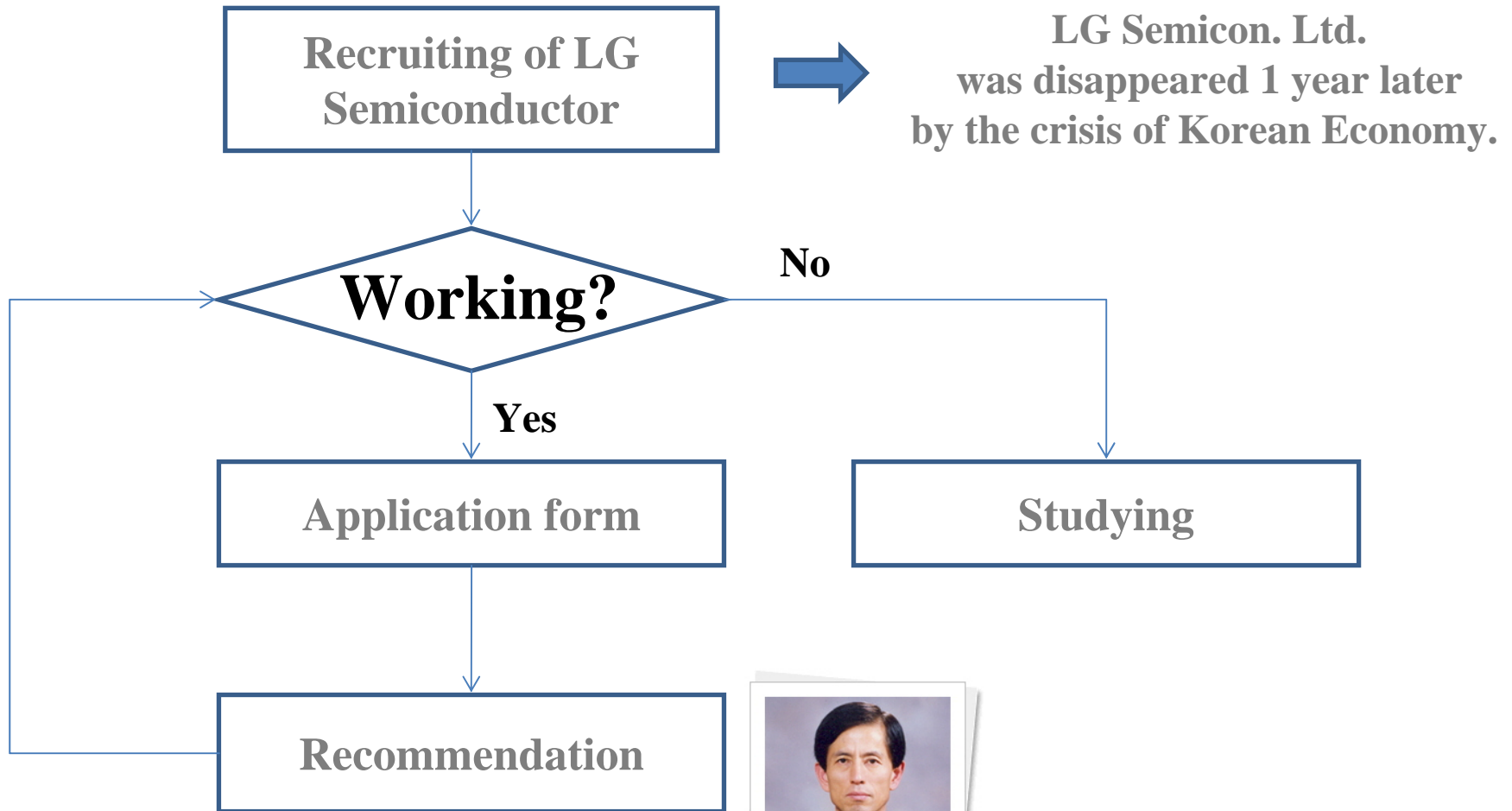


Most students disappear within one month.

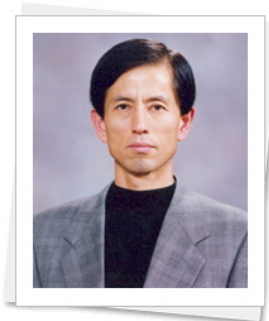


1:1 lesson from Japanese teacher.

How do I live?



LG Semicon. Ltd.
was disappeared 1 year later
by the crisis of Korean Economy.



✚
Prof. Inn-Kyu Kang
in KPNU

To study advanced field.

**I am already good
at Japanese**

**Going to abroad
Japan or America?**

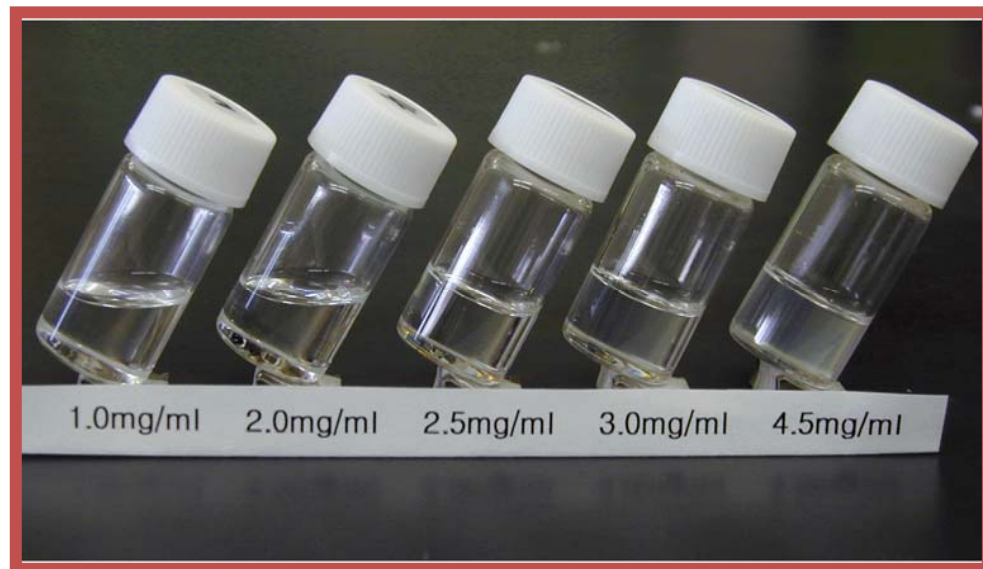
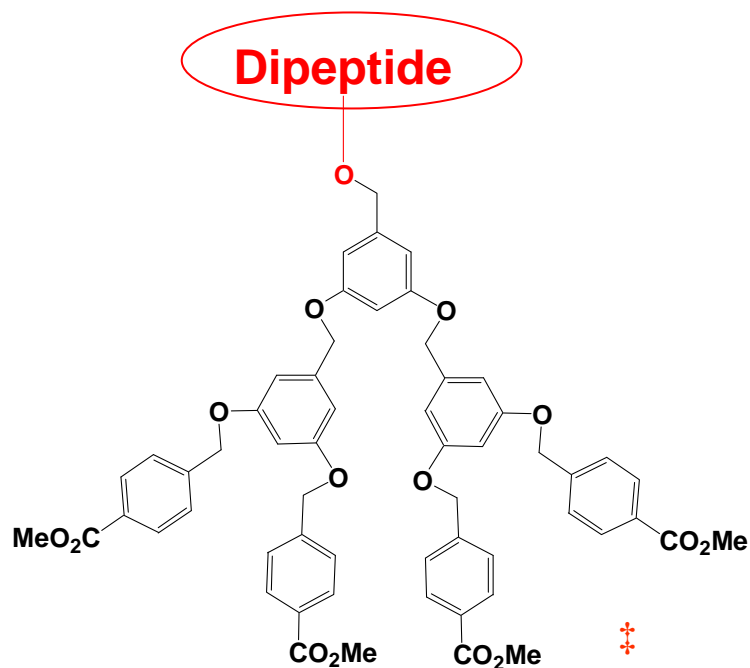


**Pass the Japanese Government
Scholarship Exam.**



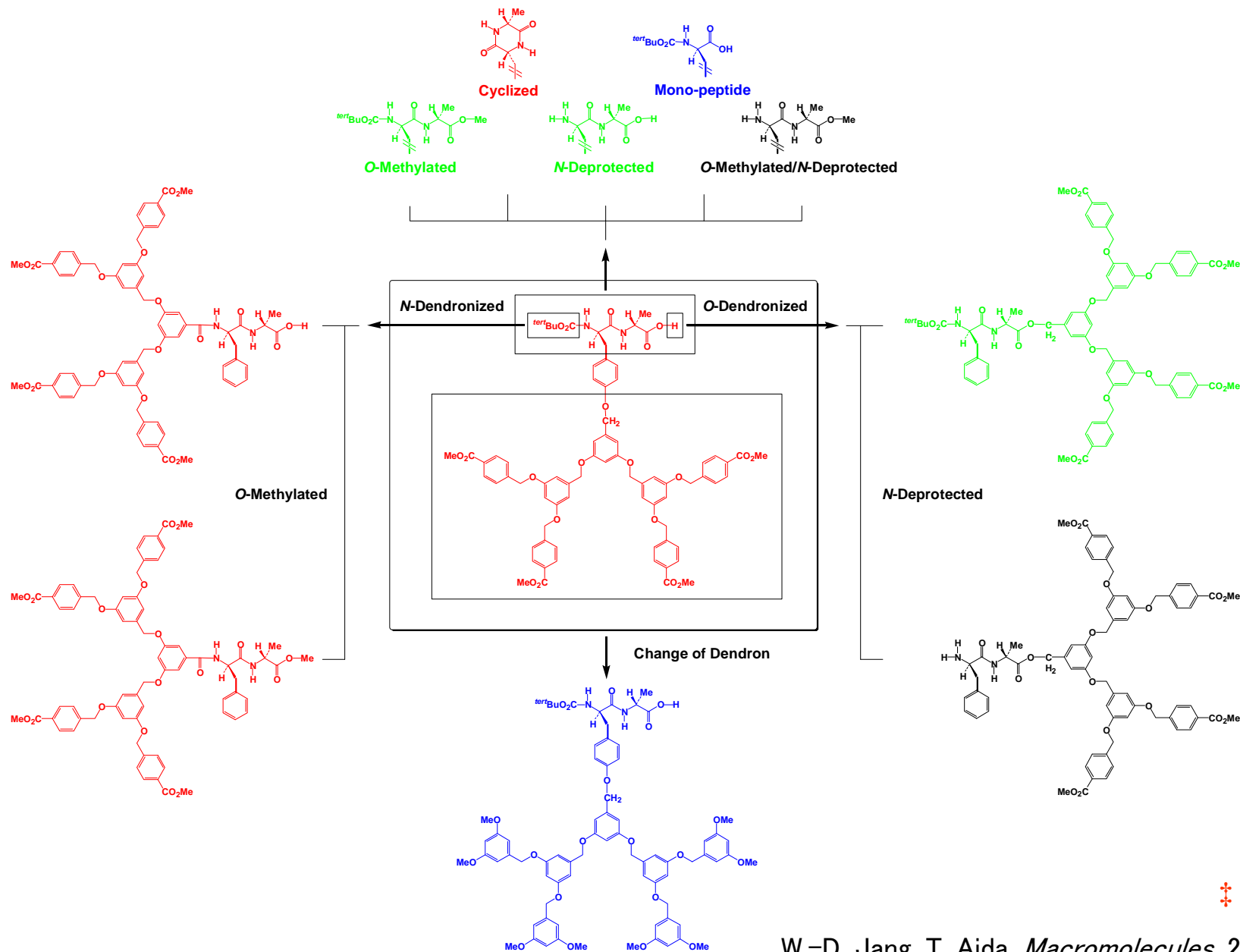
What did I do in Ph.D. program?

Physical Gelation of Dendrimer in Organic Solvents

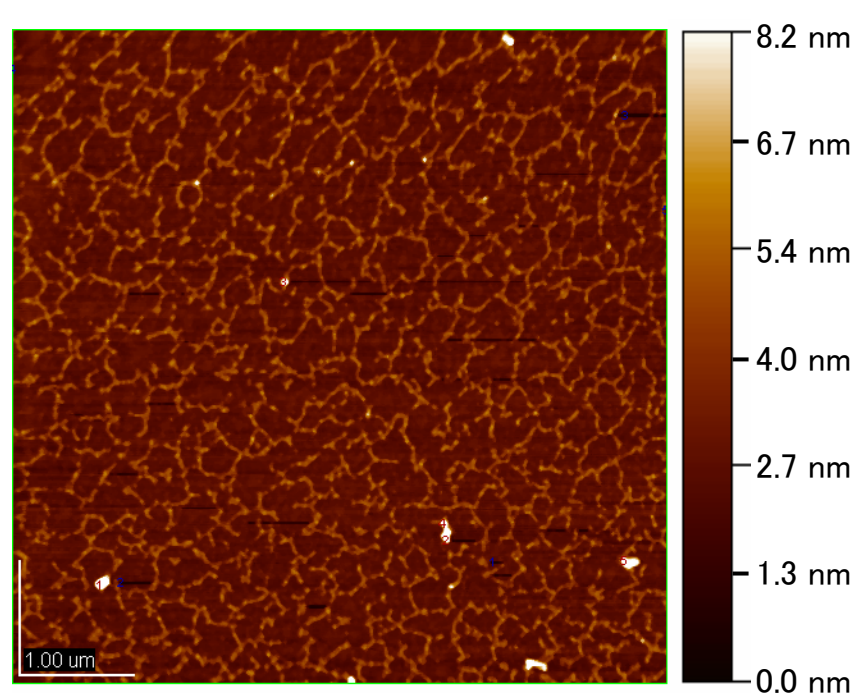
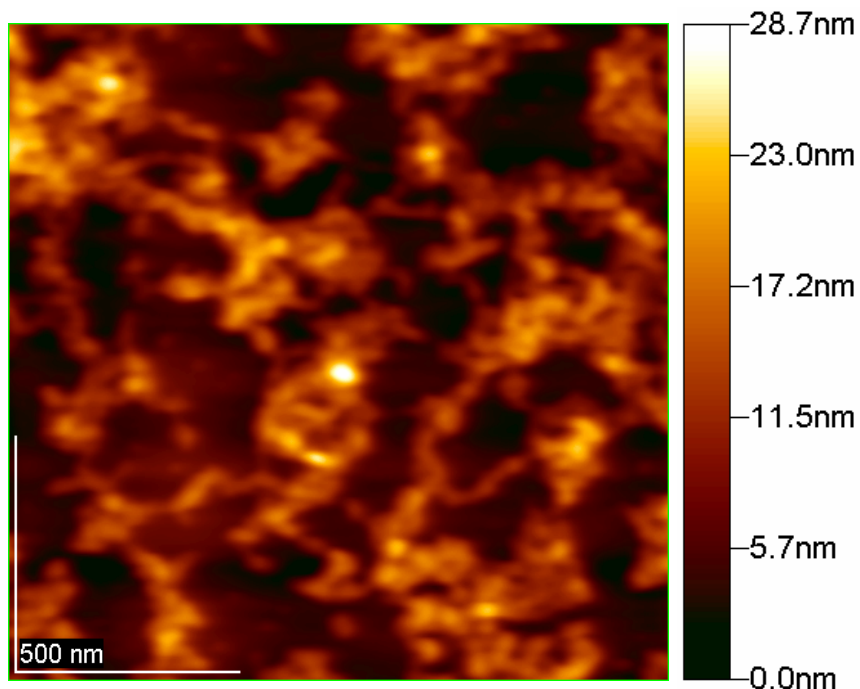


Jang, W. -D.; Jiang, D. -L; Aida, T. *J. Am. Chem. Soc.* 2000, 122, 3232.

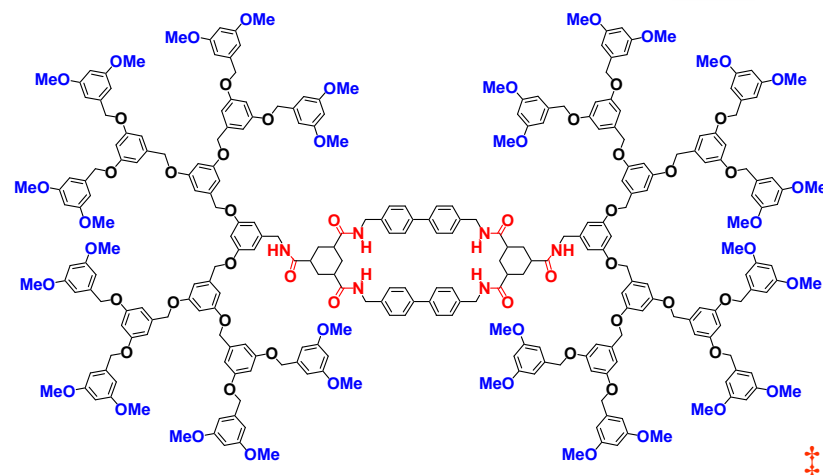
Structural Effect of Dendrimers upon Gelation



Nanofiber Formation of Self-Assembled Dendrimer

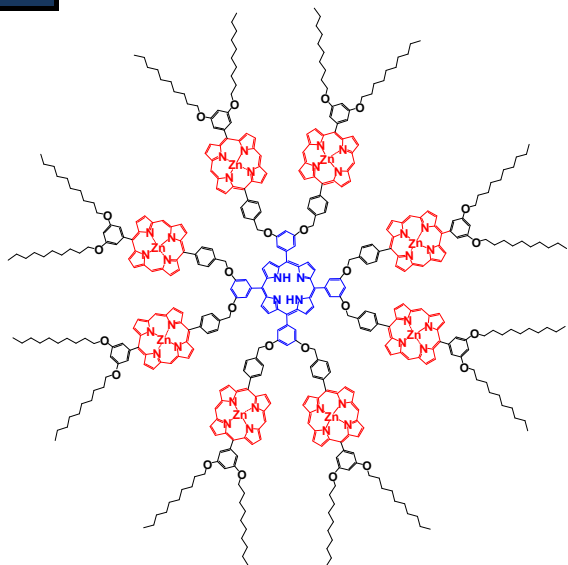


Regular Thickness (6 nm) Fibrous Assembly Formation!!

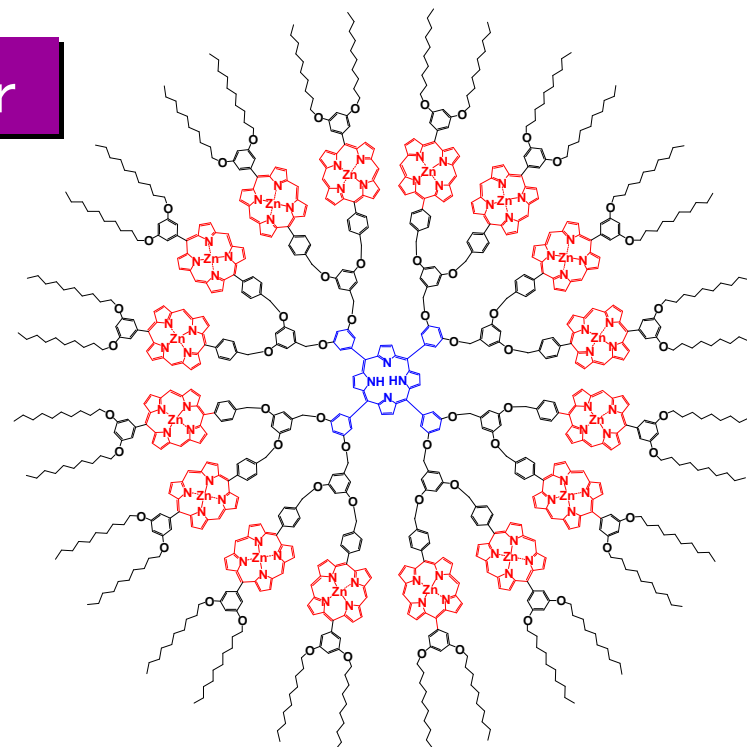


Artificial Light Harvesting System

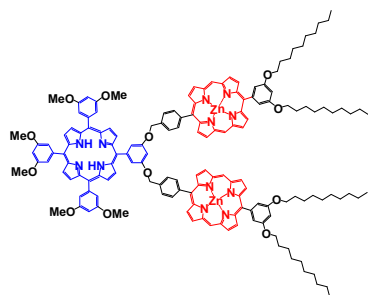
9mer



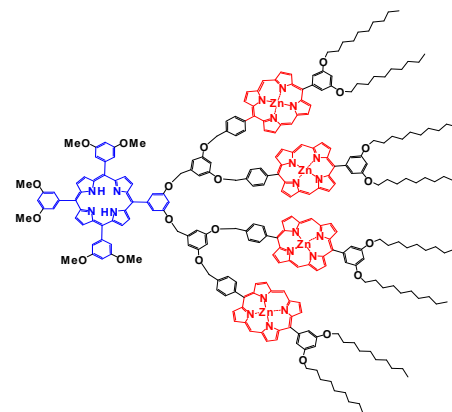
17mer



3mer

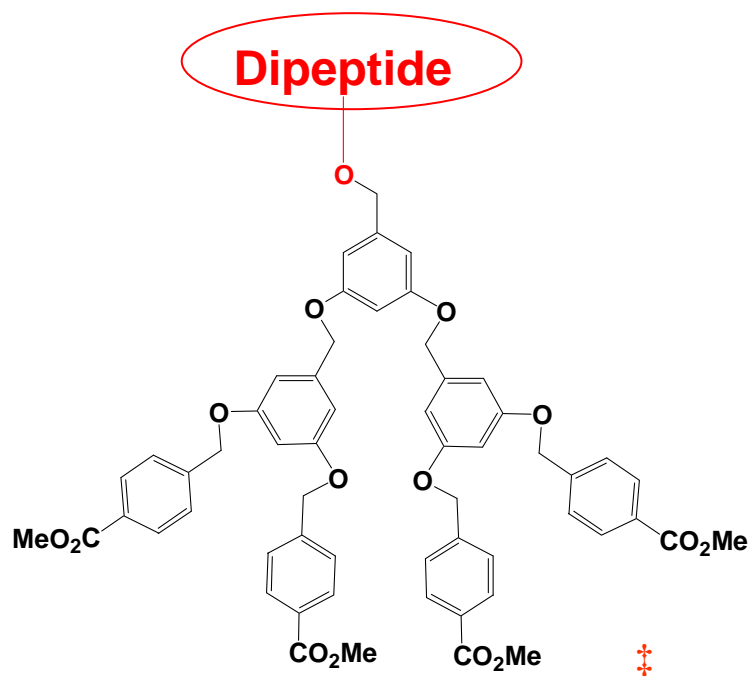


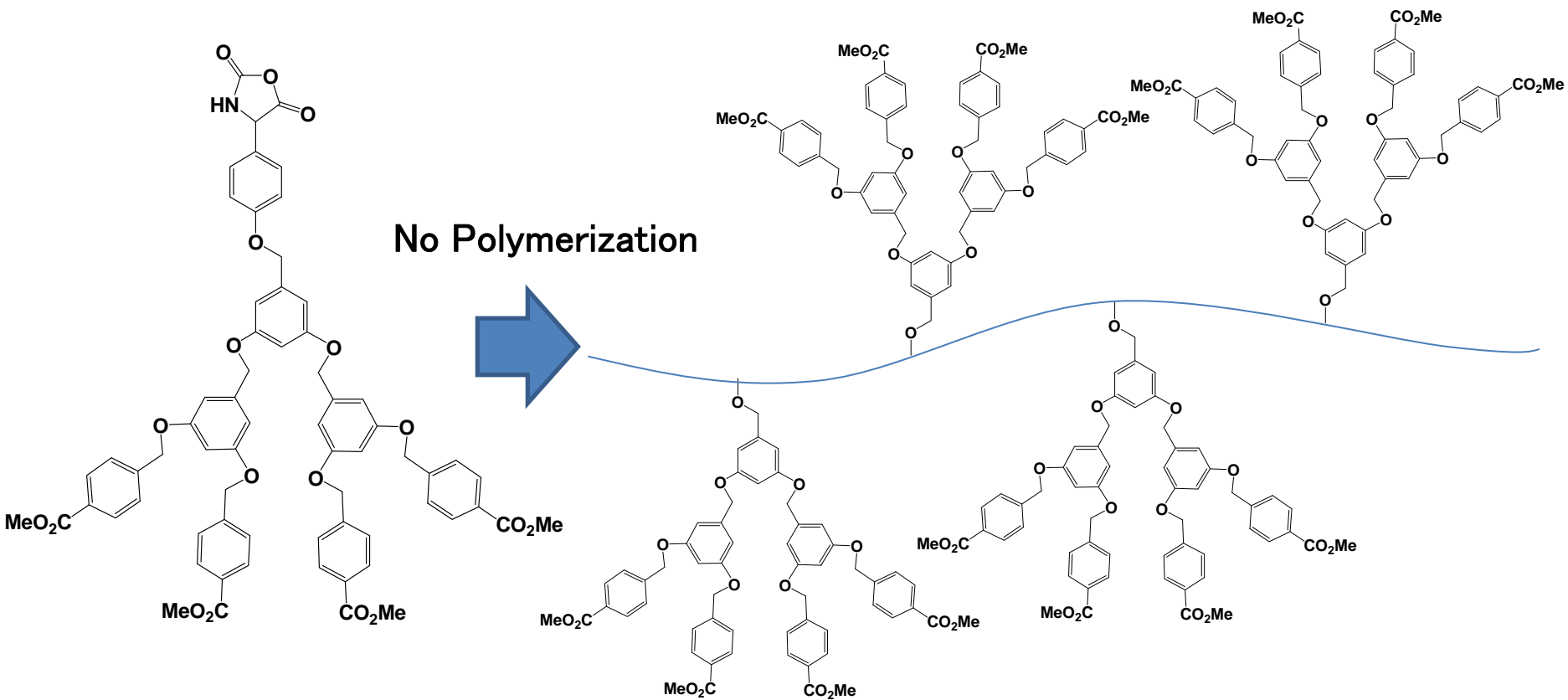
5mer

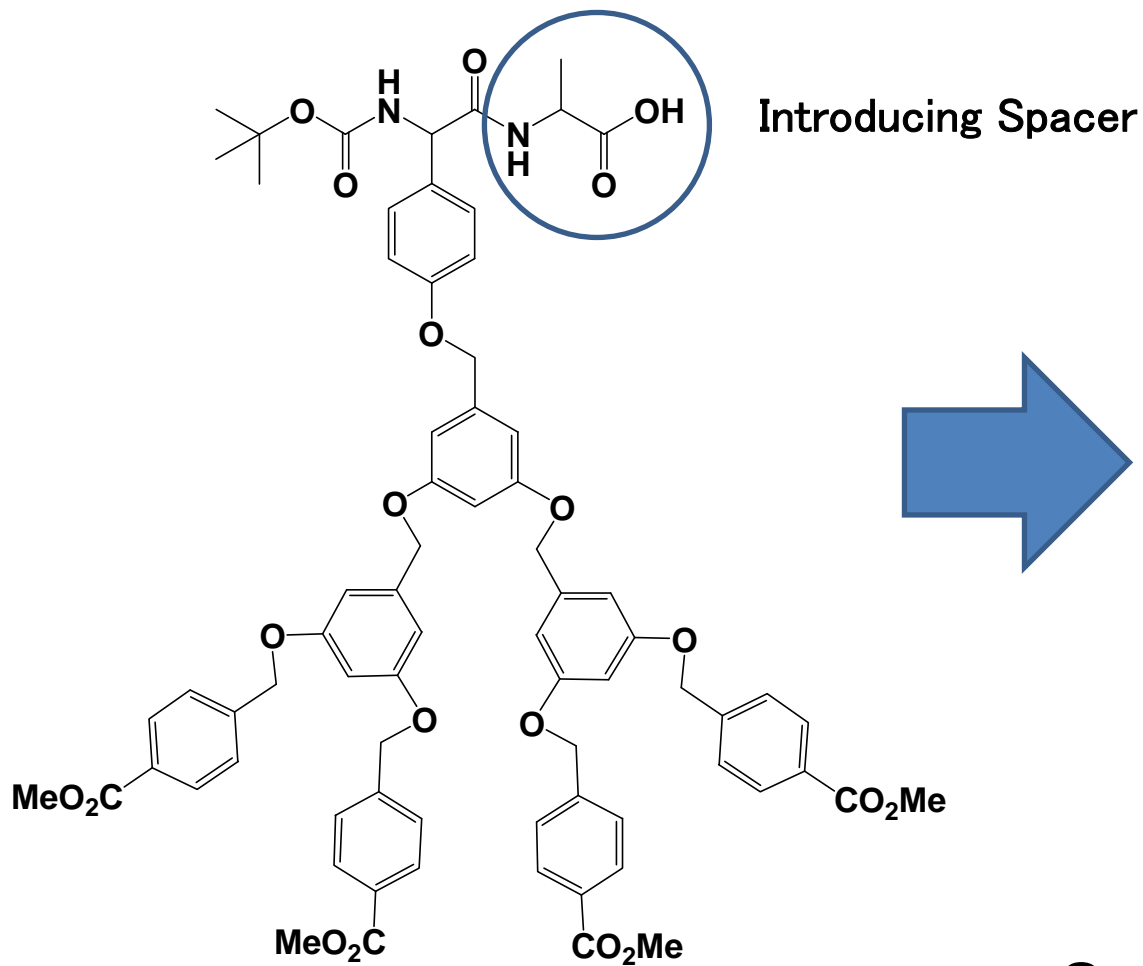


How can I find physical gel?

Physical Gelation of Dendrimer in Organic Solvents







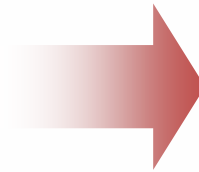
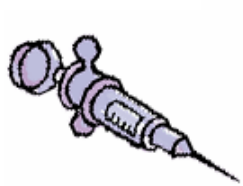
1 g of dendrimer gelled
500 mL of EA

Serendipity

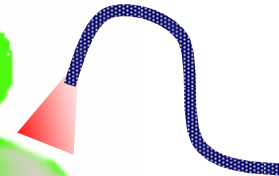
What did I do in Postdoc period?

Photodynamic Therapy

Administration of Photosensitizer



Delivery



Laser

Treatment

Limitation of Conventional Photosensitizers

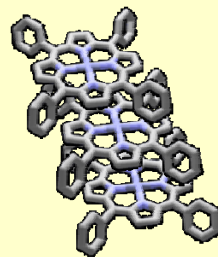
π Conjugation
(Long Wavelength Absorption)



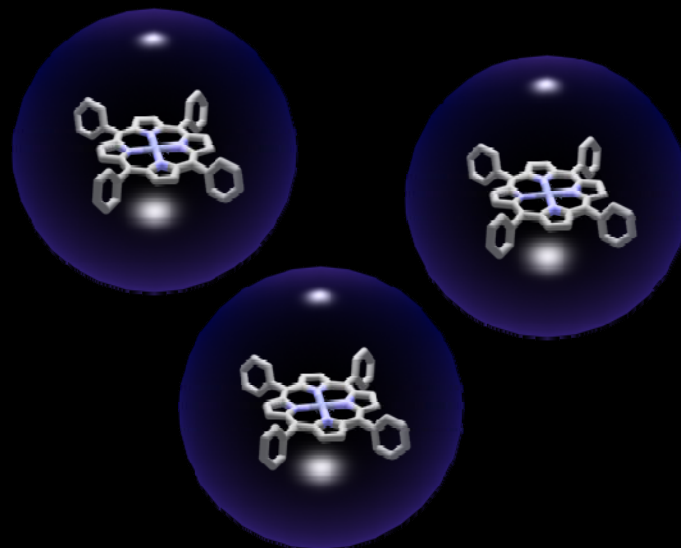
Hydrophobic Properties
 π -Stacking



Quenching



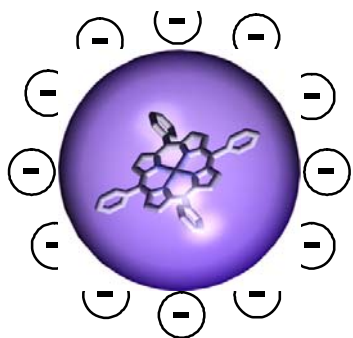
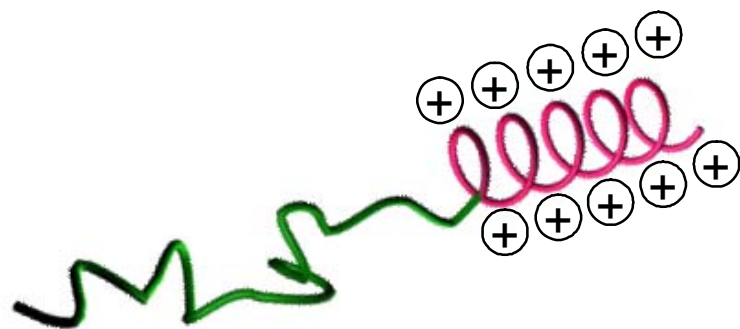
Encapsulation of Photosensitizers



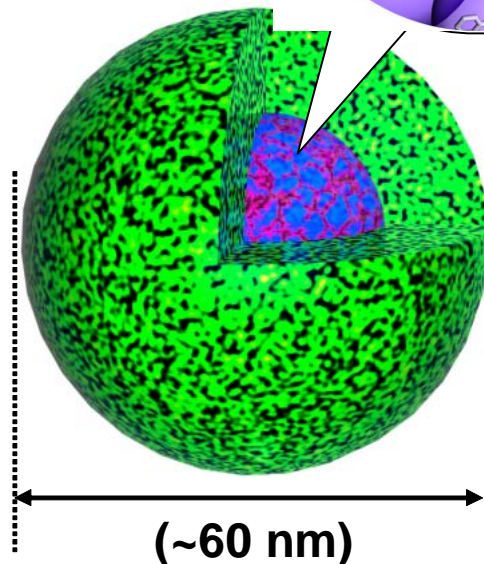
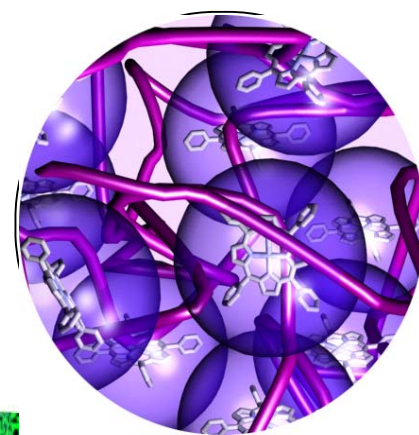
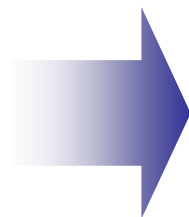
No Self-Quenching Effect !!

著作権処理の都合により、
この場所に挿入されていた図を省略させて
いただきます

Dendrimer Porphyrin Polyion Complex Micelle



Dendrimer Porphyrin (DP)

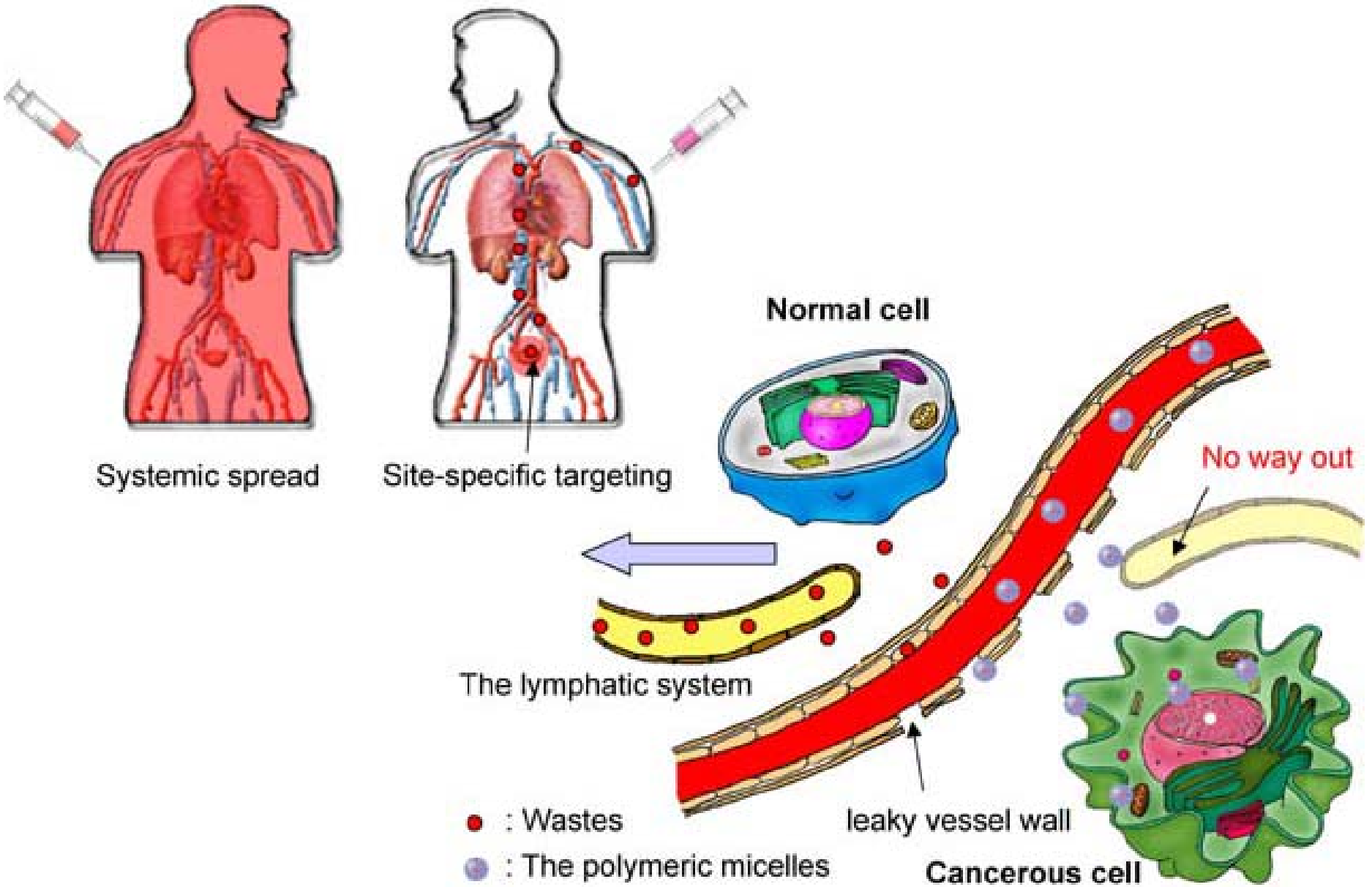


Dendrimer Porphyrin Micelle (DP/m)

著作権処理の都合により、

この場所に挿入されていた図を省略させていただきます

EPR (Enhanced Permeability and Retention) Effect



What did I do in Postdoc period?

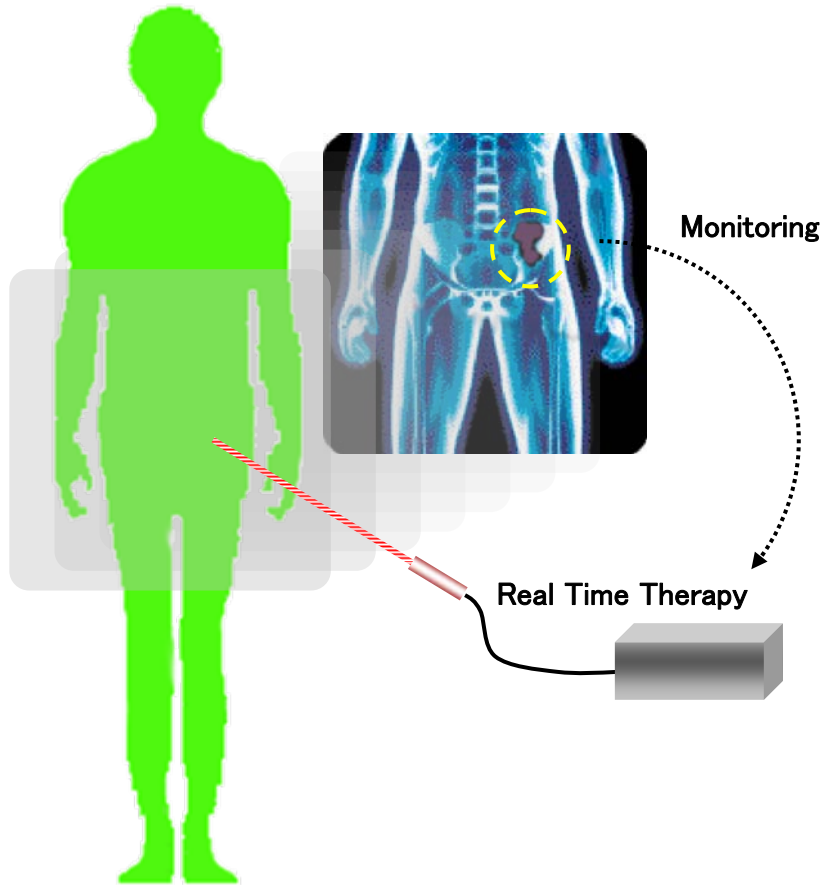
Photodynamic Therapy

Formation of Polyion Complex Micelle

Enhanced Photodynamic Efficacy

in vivo PDT Effect (Cancer, wet AMD, Corneal Neovascularization)

What I am doing now



Multifunctional Nano-Device for Therapeutic Application

Nano-Device for Real Time Treatment



연세대학교
YONSEI UNIVERSITY

College of Science Department of Chemistry

The First Chemistry Department in Korea
22 Faculty Member
Top Level Education & Research in Korea



Who am I? How do I live?

The 'I' is variable.

**What you do now is able to change your
'I' in the future.**

Acknowledgement



Chi-Hwa Lee
Jongsu Kim
Jungmi Heo
Kwangmo Choi
Soohyun Kim
Dongyong Kim
Eunyoung Lee

Prof. Inn-Kyu Kang
Kyungpook National University
Prof. Takuzo Aida
Prof. Kazunori Kataoka
✚ **The University of Tokyo**

Fund: Center for Bioactive Molecular Hybrids, KOSEF
Korea Research Fund