

# Simple Usage

Served by Proteomics Collaboration Research Group, Tokyo Metropolitan Institute of Gerontology 35-2 Sakae-cho, Itabashi-ku, Tokyo, 173-0015, Japan E-mail : proteomi@tmig.or.jp tel : 03-3964-3241

# Index

Chapte	er 1. Introduction	2
Chapte	er 2. Add 1&2DE-gel data, digestion plate data, MS plate and 2DEPAGE data	map 2
Chapte	er 3. Add and update protocol data	9
Chapte	er 4. Component parts	22
4-1.	Home	
4-2.	Keyword search	
4-3.	Editing workflow data	
4-4.	Protocol data	
4-5.	Change user password	
4-6.	Administrator only	
Chapte	er 5. Installation	37
5 - 1	Setup	
5-2	Apache-PHP-PostgreSQL installation instruction using source files	
5-3	Apache-PHP-PostgreSQL installations instruction	
	using rpm packages on Fedora Core 4 and 5	

Chapter 1 Introduction

We developed an open source laboratory information management system for 2-D gel electrophoresis-based proteomics workflow. The software development project is served by Proteomics Collaboration Research Group members, Tokyo Metropolitan Institute of Gerontology. This new LIMS is licensed under GNU Lesser General Public License. The LIMS is carried out as PostgreSQL-PHP-apache system on Linux OS. We explain how to use the LIMS.

In order to begin with this program, open the Poteomics LIMS module window of your PC. This Poteomics LIMS system can be used only by a registered user inputting "User name" and "Password". This is the system which creates a synthetic analysis by inputting user's research data and related information to each unit.

Chapter 2 Add 1&2DE-gel data, Digestion plate data, MS plate and 2DEPAGE map data

Open the window of "Home" including "Add or update 1&2DE-gel data", "Add or update digestion plate data", "Add or update MS plate data" and "Add or update 2DPAGE map data".

Back · O · K C · O · Search Stress M http://172.17.204.11/20/L1MS/lms.html TMIG Search BiomedicDB	* Fevorites Media 🛛 🗟 · 🕹 🖻 Proteomics LIMS module	Links
Home	Add or update 1&2DE-gel data	
Keyword search	User name	
	Password	
1&2DE-gel list	1&2DE-gel ID	
	Go	
Digestion plate list	Add or update digestion plate data	
MS plate list	User name	
and place list	Password	
2DPAGE map list	Digestion plate ID	
	Go	
Protocol	Add or update MS plate data	
	User name	
	Password	
	MS plate ID	
	Go	
	Add or update 2DPAGE map data	
	User name	
	Password	
	2DPAGE map ID	
	Go	
	Go	

At first, enter the User name (ex. morisawa), Password (\*\*\*\*) and 1&2-gel ID (ex. mori\_test) in each box, and click on "Go" button (Fig.1). Then the window of "Add 1&2DE-gel data of mori\_test" appears. In this window, enter "1&2DE-gel name (ex. mori\_test gel)", and click on "Add new gel data" button (Fig.2). Then the window of "Saved data is OK!" appears, and click on "Upload gel image file or gel image icon file"

link button (Fig.3). Then the window of "Update or delete 2DE-gel data of mori\_test" appears. In this window, input experimental data to each item, and upload 2DE-gel image and 2DE-gel icon. 2DE-gel icon (width:120 pixel) must be prepared by users. Uploading a TIFF image instead of a JPEG image causes an error. Check the uploaded gel image and gel icon (Fig.4).

THIS PROTEOME LIMS HOME			
Eile Edit Yiew Favorites Iools	Help 🏠 🔎 Search 👷 Favorites 🜒 Media 📢	9 🔗 🕹 🚍	20 Links
Address Address http://172.17.204.11/2D/			💌 🔁 Go
TMIG 🎾	Proteomics	LIMS module	
Biomedi	DB		
Ture	Add 1	& 2DE-gel data of mori_test	
Home Keyword search	Auur		
		[Back to main page]	
1&2DE-gel list	1&2DE-gel ID (Max 12 chara)		
Digestion plate list	User name Password	morisawa	-
MS plate list	2DE-gel name	mori_test gel	
	date	2006/7/31	
2DPAGE map list	Note		1
Protocol			8
	Add new gel data	Clear	
2.			
Done		🗳 Intern	• Fig.2
THIG PROTEOME LIMS HOME	Microsoft Internet Explorer		
Eile Edit View Favorites Iook	Help		1
	🏠 🔎 Search 🤺 Favorites 왕 Media 📢	8 8 3	Links
Address 🕘 http://172.17.204.11/2D/	IMS/lims.html		👻 🛃 Go
тмід M Biomedi	Proteomics	LIMS module	
Diomedi	.00		
	Saved data is OK!		
Home Keyword search	Upload gel image file or gel image icon file	<u>e</u>	
Keyword search	1		
1&2DE-gel list			
Digestion plate list			
MS plate list			
2DPAGE map list			
Protocol			
🙆 Done		Internet	<b>Fig.</b> 8

http://172.17.204.11/2D/LIM	Spirins.html	∞ <b>⊆</b> ▼
TMIG Biomedic	DB Proteomic	es LIMS module
Home yword search	Update	or delete 2DE-gel data of mori_test [Back to logn page]
DE-gel list	2DE-gel ID (Max 32 chara)	mori_test
	User name	morisawa
estion plate list	2DE-gel name	mori_test gel
plate list	date	2006/7/30
Parte and	2DE-gel image	
AGE map list	2DE-gel image oid	
	2DE-gel icon	
Protocol	2DE-gel icon oid	
	Note	
	Update 2DE-gel data	
	ſ	Delete 2DE-gel, gel image, gel icon and spots data
	Upload 2DE-gel image	Browse
	- providence Borninge	Upload 2DE-gel image
	Upload 2DE-gel icon (width 12	
	opioad 2DE-gei icon (width:12	Upload 2DE-gel icon
	Check the uploaded gel image Check the uploaded gel icon	Check the image Check the icon

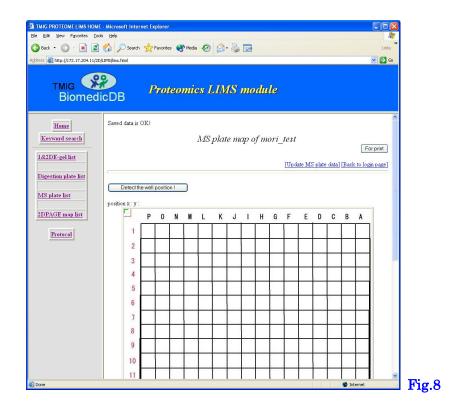
Secondly in the "Home" window, enter the User name (ex. morisawa), Password (\*\*\*\*) and Digestion plate ID (ex. mori\_test) in each box, and click on "Go" button (**Fig.1**). Then the window of "Add digestion plate data of mori\_test" appears. In this window, enter the each item, and click on "Add digestion plate data" button (**Fig.5**). Then the window of "Digestion plate map of mori\_test" appears (**Fig.6**).

TMIG PROTEOME LIMS HOME - MI	icrosoft Internet Explorer		
	jelp		<b>A</b>
🕽 Back 🔹 🜔 🕤 🛃 🛃	) 🔎 Search 🤺 Favorites   Medi	• 🚱 🏂 🗟	Links
dress 🙋 http://172.17.204.11/2D/LIM5	/lims.html		🖌 🔁 Co
тміс 🤗 Biomedicl	DB Proteomi	cs LIMS module	
Home	Add	digestion plate data of mori_test	
Keyword search		[Back to main page ]	
1&2DE-gel list	Plate ID (Max 32 chara)	mori_test	
Digestion plate list	User name	morisawa	
ingestion plate list	Password	••••	
MS plate list	Plate name	mori_test digestion plate	
	date	2006/7/30	
2DPAGE map list	Number of well	96	
Protocol	Note		
	Add digestion plate data	Clear	
			~
Done		🥮 Internet	F

TMIG PROTEOME LIMS HOMI		et Explorer										
e Edit Yiew Favorites Too Back • 🕑 • 💌 😰			- <b>(1)</b> M	edia 📿	a.)	2						w Links
ress 🕘 http://172.17.204.11/20		Num	•			1						✓ → G0
тміс Biomed	icDB	Prot	eom	ics I	.IMS	S ma	dule	e				
Home	Saved data is O	KI										~
Keyword search			D	igestic	on pla	te maj	p of :	mori	test		F	For print
1&2DE-gel list							-	IIndate	digestion	plate data	Back to lo	
Digestion plate list								- opume	agcouoli	plate udla	I I Dack to Io	Am hage I
	Detect the	well position	n!									
MS plate list	position x : y :											=
2DPAGE map list			Н	G	F	E	D	C	В	A		
Protocol		1										
		2										
		3										
		4										
		5										
		6										
		7										
ne			-	1	-						🔮 Internet	×

Thirdly in the "Home" window, enter the User name (ex. morisawa), Password (\*\*\*\*) and MS plate ID (ex. mori\_test) in each box, and click on "Go" button (**Fig.1**). Then the window of "Add MS plate data of mori\_test" appears. In this window, enter the each item, and click on "Add MS plate data" button (**Fig.7**). Then the window of "MS plate map of mori\_test" appears (**Fig.8**).

тміс 🤗 Biomedic	DB Proteomic	cs LIMS mo	dule		💌 🛃 Go
Home Keyword search	Ac	ld MS plate dat [Back	a of mori_test		
&2DE-gel list	Plate ID (Max 32 chara)	mori_test			
	User name	morisawa			
Digestion plate list	Password	••••			
IS plate list	Plate name	mori_test MS plate			
	date	2006/7/30			
DPAGE map list	Number of well	384			
Protocol	Note			8	
	Add MS plate data	Clear			



Finally in the "Home" window, enter the User name (ex. morisawa), Password (\*\*\*\*) and 2DEPAGE map ID (ex. mori\_test) in each box, and click on "Go" button (**Fig.1**). Then the window of "Add Header and Map data" appears. In this window, input experimental data to each item, and click on "Add header and map data of 2DEPAGE" button (**Fig.9**). Then the window of "The addition of header data is OK! The addition of map data is OK!" appears. In this window, click on "Update the header of 2DPAGE map" link button(**Fig.10**). Then the window of "Update header data of 2DPAGE map" mori\_test" appears. In this window, enter the each item, and upload 2DE-gel image and 2DE- gel icon. Moreover, copy 2DE-Gel data by gel ID and 2DE-Gel data by analysis set ID. Check the uploaded gel image and gel icon (**Fig.11**).

	🏠 🔎 Search 🔶	Favorites 🔮 Media	<b>€</b> ⊘-	è 🖻			Unks <sup>20</sup>	
<li>6 Http://172.17.204.11/2D/ Http://122.17.204.11/2D/ Http://122.17.2</li>	LIM5/lims.html						💌 🔁 Go	
тміс 😪 Biomedi	>	Proteomics	. 7.774	(Q				
Biomedi	cDB <sup>1</sup>	Toteomics	S LIM	s mouuu	8			
Home		A	ldd Hea	ider and Maj	o data			
Keyword search	mapid	mori_test						
&2DE-gel list	date	2006/7/30						
	sampleform							
igestion plate list	samplename							
IS plate list	species							
	race	<u></u>					_	
DPAGE map list	sex						_	
<b>n</b>	age						_	
Protocol	disease						_	
	linestrain						_	
	invitro		_				_	
	subcellular		_					
	proteincon						_	
	buffer							
	homogenization						_	
	centrifugation						_	
	proteintr							
	iefgel							
	iefbuffer							
	sampleapp							
e G PROTEOME LIMS HOME [dt Vjew Favorites Icols ack • • • • • • • • • • • • • • • • • • •	Help 🔗 Search 🤺		<b>Ø</b> Ø∙	2		Internet	* Links *	Fig.
G PROTEOME LIMS HOME (dt yjew Favorites Iools ack • ② • 💌 🗟 (ack http://172.17.204.11/20/1 TMIG V	Heip	Favorites  Media ,					Links	Fig.
<mark>G PROTEOME LIMS HOME</mark> [dt yjew Fgvorites Iools adk • ② • 💌 😰	Heip				2	Interne	Links	Fig.
G PROTEOME LIMS HOME Git Yew Payorites Toole ask · ② · · · · · · · · · · · · · · · · ·	térip Search 🔆 MrSjluns.html CDB	Favorites  Media ,			g	Internet	Links	Fig.
G PROTEOME LIMS HOME (dt yew Favorites Ioole ask · ② · · · · · · · · · · · · · · · · ·	teb Search ** IVS/Ins.html CDB Map data IN start! Mapid "mon_test"	Favorites Media	s LIM	'S modul	g		Links	Fig.
G PROTEOME LIMS HOME Git Yew Payorites Toole ask · ② · · · · · · · · · · · · · · · · ·	teb Search & MS Search & MSS Hers. Hard DES Hers. Hard Map: data IN: start! Map: data IN: start! Map: data IN: start! Map: data IN: start!	Favorites  Media ,	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI			Links V So	Fig.
G PROTEOME LIMS HOME (dt yew Favorites Ioole ask · ② · · · · · · · · · · · · · · · · ·	teb Search & MSS/Incs.html DDB Map data IN start! Mapidata IN start! Mapidata IN start!	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI			Links V So	Fig.
G PROTEOME LIMS HOME (2) Yew Parotes Looks (2) Yew Parotes Looks (3) Yew Parotes Looks (3) Yew Parotes Looks	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME Sd Yew Favores Tools as - O - N O Hup://172.17.204.11/20A TMIG Signal Home Covword search	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (2) Yew Parotes Looks (2) Yew Parotes Looks (3) Yew Parotes Looks (3) Yew Parotes Looks	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME Gdt Yew Pavotes Tools ask · O · · · · · · · · · · · · · · · · ·	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (dt yew Favories Tools ack · Q · R Q (dt yew Favories Tools (dt yew Favories	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME Gdt Yew Payortes Tools ask · O · · · · · · · · · · · · · · · · ·	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.
G PROTEOME LIMS HOME (d) Yew Parotes Tools (e) Parotes Tools (e) Parotes Tools (e) Parotes Tools (f) Pa	téo Search 20 Search 20 S	Favorites Media · <b>Croteomics</b> er data is OKI The a	g <b>LIM</b>	<b>S modul</b> 1419 data is OKI	ge and gel Upda		Links V So	Fig.

TMIG PROTEOME LIMS HOM	iE - Microsoft Internet Expl	orer 🗧 🗖 🛛	1
File Edit View Favorites To	iols <u>H</u> elp		1
🔇 Back 🔹 🕥 - 💌 🛃	) 🏠 🔎 Search 🤺 Fa	vorites 🜒 Media 🚱 🍰 🔜 🛄	
Address 🕘 http://172.17.204.11/2	D/LIMS/lims.html	💙 🋃 Go	
тміс Biomed		oteomics LIMS module	
Home Keyword search	·	Update header data of 2DPAGE map :mori_test [Back to login page]	
1&2DE-gel list	Map ID	mori_test	
	Username	morisawa	
Digestion plate list	Date	2006/7/30	
	Gel image		
MS plate list	Gel image oid		
	Gelicon		
2DPAGE map list	Gel icon oid		
Protocol	Map note	×	
	Update header of	jata	
	Gel ID for copy [ spot positions, linked data, gel image and icon ]		
		Copy 2DE-Gel data by gel ID	1
	Analysis set ID for copy [ spot positions, linked data, gel image and icon ]		
		Copy 2DE-Gel data by analysis set ID	
	Upload 2DE-gel	Browse	
Done Done		🔮 Internet	<b>Fig.1</b>

Chapter 3 Add and update protocol data

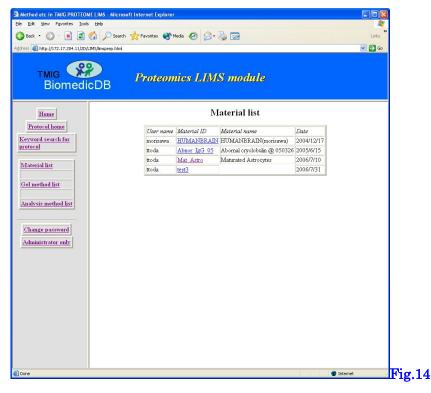
Open the window of "Protocol home" including "Add or update material data", "Add or update gel method data" and "Add or update analysis method data".

Method etc in TMIG PROTEOME LIMS - Micro : Edit View Fgvorites Tools Help		
	ch 🤺 Favorites 🜒 Media 🤣 🎯 - چ 🥽	Links
ss 🕘 http://172.17.204.11/2D/LIMS/imsprep.html		💌 🛃 Go
TMIG BiomedicDB	Proteomics LIMS module	
Home	Add or update material data	
Protocol home	User name	
eyword search for	Password	
rotocol	Material ID	
	Go	
Material list	Add or update gel method data	
Gel method list	User name	
	Password	
Analysis method list	Gel method ID	
	Go	
Thange password	Add or update analysis method data	
Administrator only	User name Password	
	Analysis method ID	
	Go	
	GU	

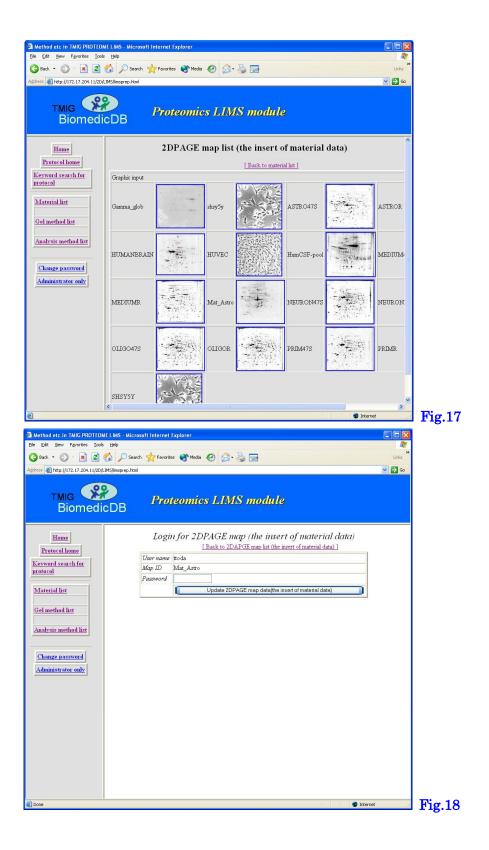
At first, enter the User name (ex. morisawa), Password (\*\*\*\*) and Material ID (ex. mori\_test) in each box, and click on "Go" button(Fig.12). Then the window of "Add material data of mori\_test" appears. In this window, enter the each item, and click on "Add material data" button (Fig.13). Then the window of "The insert of data is OK!" appears. In this window, click on "Material list" link button. Then the window of "Material list" appears.

TMIG Biomedic	Proteomie	s LIMS module	Go
Home	Ad	d material data of mori_test	
Protocol home		[Back to protocol main page ]	
word search for tocol	Material ID (Max 12 chara)	mori_test	
	User name	morisewa	
iterial list	Material name	mori_test material data	
l method list	Sample form		
	Sample name		
alysis method list	Species		
	Race strain		
hange password	Sex	male 💌	
lministrator only	Age		
	Disease		
	Tissue		
	Line strain		
	In vitro treatment		
	Subcellular fractionation		
	protein-concentration		
	Date	2006/7/30	
	Note		
		<u></u>	

In this window, click on "Material ID (ex. Mat\_Astro)" link button (Fig.14). Then the window of "Login for material" appears. Enter the Password (\*\*\*\*), and click on "Update or delete material data " button (Fig.15). Then the window of "Update or delete material data" appears. In this window, input experimental material data in each box, and update or delete material data (Fig.16). In addition, click on "Insert in 2DEPAGE map data" button, and then "2DPAGE map list" appears. In this window, click on the user's gel icon (ex. Mat\_Astro) (Fig.17). Then the window of "Login for 2DPAGE map (the insert of material data)" appears. Enter the Password (\*\*\*\*), and click on "Update 2DPAGE map data (the insert of material data)" button (Fig.18). Then the window of "Update Map Data of Mat\_Astro" appears. Input the data in each box, and click on "Update 2DPAGE map data" (Fig.19).



	AE LIMS - Microsoft Internet Explorer		3
Ele Edit Yiew Favorites Iools	Help		33
Address 🙆 http://172.17.204.11/2D/L			
Agoress antp://172.17.204.11/20/0	unojunispreptintini		
Biomedi	DB Proteomics	LIMS module	
Biomour			
Home Protocol home Keyword search for protocol Material list Gel method list Analyris method list Change password Administrator only	User name Material ID Fassword	Login for material [Back to material list] toda Mat_Astro Undate or delete material data	
🕘 Done		internet	Fig.15
Ele Edt Yew Favorites Iools	Search 🔆 Favorites 🔮 Media 🧟 UMS/Insprep.html	LIMS module	
Ele Edit Yelev Feynorites Tools Stack - O Rock	telo Porteomics	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Bie Edit Yew Feynerites Took Back -  Back -  Control -	beb Search Stravites Meda Hedingsrep.html CDB Proteomics	De Se	
Bie Edit Yew Feynerites Tools Book - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	este Search & Favortes Media & Medinagene Atril Proteomics Material ID (Max 12 chara)	Destination of the second	
Bie Edit Yew Feynerites Took Back -  Back -  Control -	beb Savch & Favories Mieda & Missimgrep.htm Proteomics Material ID (Max 12 chars) User name		
Bie Edit Yew Feynerites Look Back - O P C P C P C P C P C P C P C P C P C P	ebo Search Streventes Media A Medingrep. html Proteomics Material ID (Max 12 chara) User name Material name		
Be Est Yew Feynets Took Back · O · E C Address Hatp-//172.17.204.11/2010 Home Protocol home Keyword search for	beb ♪ Search ☆ Favortes ♥ Meda @ WeS#magrep.html Proteomics Material ID (Max 12 chara) User name Material name Sample form		
Be Edi Yew Feynettes Look Back · O · N · O · O · O · O · O · O · O · O	beb Search Seventes Meda & Medamagrep.htm Proteomics Proteomics Proteomics Proteomics Sample form Sample form Sample name		
Bie Edit Yew Feynerites Look Back - O P C P C P C P C P C P C P C P C P C P	beb Sarch Streventes Meda ( Material ID (Max 12 chara) Urs mane Material name Sample form Sample form Sample name Species	Image: Contract of the second seco	
Be Edi Yew Feynettes Look Back · O · N · O · O · O · O · O · O · O · O	bb Sarch Strootes Made ( Material ID (Max 12 chars) User name Material name Sample form Sample form Sample form Sample name Species Race strain	Image: Contract of the second seco	
Bie Edit Yew Feyneties Look Back - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	tede		
Bie Edit Yew Feyneties Look Back - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	beb → Savch ☆ Favories  Media Material ID (Max 12 chara) User name Material name Sample form Sample name Species Race strain Sex Age		
Bio Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela → Sarch ☆ Favorice  Media Material ID (Max 12 chars) User name Material name Sample name Sample form Sample form Sample form Sample same Species Race strain Sex Age Disease		
Bie Edit Yew Feynettes Look Back - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela → Saarch ☆ Favortes Media → Media A and		
Bio Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bole → Soarch ☆ Favortes Media → Media A → Media A		
Bio Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	beb → Soarch ☆ Fovortes  Meda → Med		
Bio Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	tede Posech ☆ Favorice  Media Proteomics		
Bio Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Uter name Material ID (Max 12 chara) Uer name Material name Sample form Sample form Sample name Sample name Sample name Sample name Sample name Sample name Disease Tissue Line strain In vitro treatment Subcellular flactionation protein-concentration		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	tede Posech ☆ Favorice  Media Proteomics		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Uter name Material ID (Max 12 chara) Uer name Material name Sample form Sample form Sample name Sample name Sample name Sample name Sample name Sample name Disease Tissue Line strain In vitro treatment Subcellular flactionation protein-concentration		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Uter(Imageno.htm) Peroteomics Per		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Uter(Imageno.htm) Peroteomics Per		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Utrofingero.html		
Bie Edit Yew Feynettes Look Dade - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	bela Material ID (Max 12 chara) Utrofingero.html		



dit View Favorites Iools H	IMS - Microsoft Ir elp		
ack • 🕥 - 💌 😰 🏠	🔎 Search 🚽	Favorites 🜒 Media 🚱 🔗 - چ 🧫	» Links
http://172.17.204.11/2D/LIMS/			⇒ Go
TMIG Biomedic[	DB	Proteomics LIMS module	
Home		Update Map Data of Mat_Astro	^
Protocol home		Back to login for 2DPAGE map (the insert of material data)	
word search for tocol			-
	Map ID	Mat_Astro	
aterial list	Username	ttoda	
l method list	Date	2006/7/7	
alysis method list	Map Note	<u>a</u>	
	Map Hote		
hange password	Map ID	Mat_Astro	
hange password		Mat_Astro	
	Map ID		
	Map ID date	2006/7/7	
	Map ID date sampleform	2006/7/7 Cutured cells	
	Map ID date sampleform samplename	2066/7/7 Cultured cells Alypical astrocytes	
	Map ID date sampleform samplename species	2006/7/7 Cultured cells Alypical astrocytes Rot	
	Map ID date sampleform samplename epecies race	2006/7/7 Cultured cells Alypical astrocytes Pat Wrister	
	Map ID date sampleform samplename species race sex	2006/7/7 Cultured cells Atypical astrocytes Reat Wister Unknown	
	Map ID date sampleform samplename op ocios race sex age	2006/7/7 Cultured cells Atypical astrocytes Pat Wister Unknown Fetal day 16	
	Map ID date sampleform samplename opecies race sex age disease	2006/1// Cultured cells Appical satrocytes Ret Wrister Ucknown Fetal day 16 None	

Secondly in the "Protocol home" window, enter the User name (ex. morisawa), Password (\*\*\*\*) and Gel method ID (ex. mori\_test) in each box, and click on "Go" button (Fig.12). Then the window of "Add gel method data of mori\_test" appears. In this window, enter the each item, and click on "Add gel method data" button (Fig.20). Then the window of "The insert of data is OK!" appears. In this window, click on "Gel method list" link button. Then the window of "Gel method list" appears.

🕘 - 🖹 🙆 🏠 🔎 Search 🤺 Favorites 🜒 🕅	Media 🚱 🔂 • 🖕 🔙 Links
//172.17.204.11/2D/LIM5/limsprep.html	👻 🏓 Go
BiomedicDB	nics LIMS module
	Add gel method data of mori_test
Lhome	[Back to protocol main page ]
Gel method ID (Max 12 chara)	mori_test
User name	morisawa
St Gel method name	mori_test gel method
d list Buffer	
Homogenization	
Centrifugation	
Protein treatment	
assword Ief gel	
ator only Ief buffer	
Sample application	
Ief power supply	× ×
Alkylation	
PAGE gel	
PAGE buffer	
PAGE power supply	
Date	2006/7/31
Note	
Add gel method data	Clear

In the window, click on "Gel method ID (ex. Standard\_2DE)" link button (Fig.21). Then

the window of "Login for gel method" appears. Enter the Password (\*\*\*\*), and click on "Update or delete gel method data" button (Fig.22). Then the window of "Update or delete gel method data" appears. In this window, input experimental gel method data in each box, and update or delete gel method data(Fig.23). In addition, click on "Insert in 2DEPAGE map data" button, and then "2DPAGE map list" appears. In this window, click on the user's gel icon (ex. Mat\_Astro) (Fig.24). Then the window of "Login for 2DPAGE map (the insert of gel method data)" appears. Enter the Password (\*\*\*\*), and click on "Update 2DPAGE map data (the insert of gel method data)" button (Fig.25). Then the window of "Update Map Data of Mat\_Astro" appears. Input the data in each box, and click on "Update 2DPAGE map data" (Fig.26).

Method etc in TMIG PROTEOM	E LIMS - Microsoft Internet Explorer				
Ele Edit View Favorites Iools	Help				27
🚱 Back 🔹 🐑 - 💌 😰 🄇	🏠 🔎 Search 🤸 Favorites  😵 M	nedia 🙆 🔗			Links
Address a http://172.17.204.11/2D/L1	MSåinspren, html				🛩 🛃 Go
тміс 🕅 Biomedia	Proteon	nics LIN	1S module		
Home		Ge	l method list		
Protocol home	User name	Gel method ID	Gel method name	Date	
Keyword search for	morisawa	methodHB	method for HumanBrain(mori)	2004/12/17	
protocol	ttoda	1-D_050606	1-D SDS-PAGE 050606	2005/6/15	
	ttoda	Standard_2DE	Standard 2D gel method	2006/7/10	
<u>Material list</u>	ttoda	test3		2006/7/31	
Change password Administrator only					
Ê				<b>9</b> I	<sup>iternet</sup> Fig

	AELIMS - Microsoft Internet Explorer		
Ele Edit Yjew Favorites Iools			<b>N</b>
	🏠 🔎 Search 🤺 Favorites   Media	• 🕙 🖉 - 👹 🖬	Links
Address 🗃 http://172.17.204.11/2D/L	.IMS/limsprep.html		🖌 🔁 😳
00			
	Proteomi	cs LIMS module	
Biomedi	cDB Froteomic	es Lims mounte	
	Mer anno 1 ( research )		
TT I		Login for gel method	
Home		[Back to gel method list]	
Protocol home			
Keyword search for protocol	User name		
protocol		d ID Standard_2DE	
<u>Material list</u>	Password		
		Update or delete gel method data.	
Gel method list			
Analysis method list			
Change password			
Administrator only			
(iii) Dana		a totomot	<b>– – – – – –</b>
a Done		🖉 İnternet	Fig.22
Method etc in TMIG PROTEON	AF LIMS - Microsoft Internet Explorer	internet	
Method etc in TMIG PROTEON Ele Edit Yjew Favorites Iools	Helb		
Method etc in TMIG PROTEOM Ele Edit Yew Favorites Iools	Help	• Ø Ø· 🍃 🖻	Links <sup>w</sup>
Method etc in TMIG PROTEON Ele Edit Yjew Favorites Iools	Help	• Ø Ø· 🍃 🖻	
Method etc in TMIG PROTEOM Ele Edit Yew Favorites Iools	Help	• Ø Ø· 🍃 🖻	Links <sup>w</sup>
Method etc in TMIG PROTION     Ed 2 yew Favorites Tools     Back · · · · · · · · · · · · · · · · · · ·	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	• 🤣 🗟 • 💺 🖻	Links <sup>w</sup>
Method etc in TMIG PROTION     Ed 2 yew Favorites Tools     Back · · · · · · · · · · · · · · · · · · ·	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	• Ø Ø· 🍃 🖻	Links "
Method etc in TANG PROTEON Ele Edit Yew Favorites Icols Back · ② · ¥ © Address @ http://172.17.204.11/20/L	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	• 🤣 🗟 • 💺 🖻	Links <sup>w</sup>
Method etc in TMIG PROTEON Ele Edt Yew Favorites Joos Sade Control (1997) Address (1997) TMIG Biomedia	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	• • • 🗟 🗟 🗟	Links <sup>w</sup>
Method etc in TMIG PROTEON Fle Edt Yew Favories Joos Sack Control (1997) Address (1997) Home Home	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	• 🤣 🗟 • 💺 🖻	Links <sup>w</sup>
Method etc in TMIG PROTEON     For Edt Yew Favorites Tools     Sed:      O	tele Search 🔆 Fevorites 🕥 Media 1MS (Imsprep. html	<ul> <li>Solution</li> <li>Image: Solution</li> <li>Solution</li> <li>So</li></ul>	Links <sup>w</sup>
Method etc in TMIG PROTION To Edt Yew Favorites I Dol Back Direction (1997) Address Direction (1997) Mig Constant Home Protocol home Keyword search for	teb	e O So So To	Links <sup>w</sup>
Method etc in TMIG PROTEON     For Edt Yew Favorites Tools     Sed:      O	teb Search Stravates Medi Hojimsrep.hul CDB Proteomic Gel method ID (Max 12 chara)	<ul> <li>Image: Standard 2DE</li> <li>Standard 2DE</li> </ul>	Links <sup>w</sup>
Method etc in TMIG PROTION To Edt Yew Favorites I Dol Back Direction (1997) Address Direction (1997) Mig Constant Home Protocol home Keyword search for	iedo Saarch & Favorites Middl Medinosrep. hini Proteomic Gel method ID (Max 12 chara) User name	<ul> <li>         Image: Standard 2DE         Toda     </li> </ul>	Links <sup>w</sup>
Method etc in TMIG PROTION     For Edit year Favoritas I color     Seck - O + R O + O + O + O + O + O + O + O + O	ight interfingerep. html CDB Proteomic Gel method ID (Max 12 chara) User name Gel method name		Links <sup>w</sup>
Method etc in TMIG PROTEON For Edt Yew Favorites Tools Stade & O & O & O Address Thete-I/172.17.204.11/2014 TMIG Stade & O Biomedia Frotocol home Keyword search for protocol	i jebo Saarch 🔆 Favorites <equation-block> Medi Jetifimiserep. hird Proteomite Gel method ID (Max 12 chara) User name Gel method name Buffer</equation-block>		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tool     Sed.      O	Ight Ideal Interfinance p. html Interfinance p. html Ideal I		Links <sup>w</sup>
Method etc in TMIG PROTION     For Edit year Favoritas I color     Seck - O + R O + O + O + O + O + O + O + O + O	beb → Search ☆ Paverkes ♥ Media Medianseep.html → Definition → Definiton → Definiton → Definition → Definition → Defini		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tool     Sed.      O	beb		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tool     Sed.      O	ible interfinance of the second of the seco		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bad:      Control of the second s	ible Part Proteomic CDB Control (Max 12 chara) User name Gel method ID (Max 12 chara) User name Gel method name Buffer Homogenization Centrifugation Protein reatment Ief gel Ief buffer Sample application		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	igle Starth & Favories Medi Medingsrep. httl Gel method ID (Max 12 chara) User name Gel method name Buffer Homogenization Centrifugation Protein treatment Ief gel Ief buffer Sample application Ief power supply		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ible Park Karley Sarch Karley		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ible → Search ☆ Favories  Medi JEGImesrep. htm Proteomia Gel method ID (Max: 12 chara) User name Gel method name Buffer Homogenization Centifugation Protein treatment Ief gel Ief buffer Sample application Ief power supply Alkylation PAGE gel		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ible → Search ☆ Favories  Medi JEGImesrep. htm Proteomia Gel method ID (Max: 12 chara) User name Gel method name Buffer Homogenization Centifugation Protein treatment Ief gel Ief buffer Sample application Ief power supply Alkylation PAGE gel		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ible Park revortes revortes revortes Proteomia Proteomia Proteomia Gel method ID (Max 12 chara) User name Gel method name Buffer Homogenization Centrifugation Protein treatment Ief gel Ief buffer Sample application Ief power supply Alkylation PAGE gel PAGE power supply		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb	O O O O O O O O O O O O O O O O O	Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb		Links <sup>w</sup>
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb	O     O	
Method etc in TMIG PROTION     for Edt Yew Favories Tools     Bade Of The Provide The Provide The Provide The Protocol home     Kerward search for     protocol     Material list     Gel method list     Analyzis method list     Change password	ibb ibb ibb ibb ibb ibb ibb ibb	O     O	

Method etc in TMIG PROTEON     Ele Edit View Favorites Tools     Gack • O • K 20	Help		0 0	RO			Links	
Address 🗿 http://172.17.204.11/2D/L	.IM5/limsprep.html	( names 🕤 meas					✓ 2 60	
тміс Biomedi	cDB	Proteomic	s LIM	IS module	8			
Home		2DPAGE n	nap list (	the insert of	gel metho	d data)	^	
Protocol home Keyword search for	Graphic input			[ Back to gel meti	hod list ]			
<u>protocol</u> Material list Gel method list	Gamma_glob		shsy5y		ASTRO47S		ASTROR	
Analysis method list	HUMANBRAIN		HUVEC		HumCSF-pool		MEDIUM <sup>2</sup> =	
Administrator only	MEDIUMR		Mat_Astro		NEURON47S		NEURON.	
	OLIGO47S		OLIGOR		PRIM47S		PRIMR	
<u>گا</u>	SHSY5Y					Sinterna	st	Fig.24
Method etc in TAIG PROTEON     E    Ed: yew Fgrontes Tods     Dask · O · N 2     Address A Http://72.17.204.1/20/0      TMIG	Help				9		Links <sup>2</sup>	
Home Home Protocol home Keyword search for protocol Material hst Gel method list Analysis method list Change password Administrator only		ogin for 2DI [ name ttoda D Mat_Astro	PAGE ma Back to 2DA		t of gel mei isert of gel metho	d data) ]		
😰 Done						Intern	et	Fig.25

it Yiew Favorites Tools Help	S - Microsoft I		
		Favorites 🜒 Media 🚱 🔗 - 🌺 🔜	» Links
http://172.17.204.11/2D/LIM5/lime			🔁 Go
TMIG SPACE		Proteomics LIMS module	
Home		Update 2DPAGE Map Data of Mat_Astro	^
otocol home		[Back to login for 2DPAGE map (the insert of gel method data)]	
ord search for			
col	Map ID	Mat Astro	
erial list	Username	ttoda	
	Date	2006/7/7	
nethod list vsis method list	Map Note	2	
1		<u> </u>	
mge password	Map ID	Mat_Astro	í -
distant as her	Map ID date	Mat_Astro	
ainistrator only	-		-
ninistrator only	date	2006/7/7	
ainistrator only	date sampleform	2006/7/7 Cultured cells	
ninistrator only	date sampleform samplename	2006/7/7 Cultured cells Alypical astrocytes	
inistrator only	date sampleform samplename species	2006/7/7 Cultured cells Atypical astrocytes Pat	
<u>unistrator only</u>	date sampleform samplename species race	2006/7/7 Cultured cells Alypical astrocytes Pat Wrister	
inistrator only	date sampleform samplename species race sex	2006/7/7 Cultured cells Alypical astrocytes Rat Wister Unknown	
amistrator only	date sampleform samplename species race sex age	2006/7/7 Cultured cells Atypical astrocytes Pat Wister Unknown Fetal day 16	
amistrator ouly	date sampleform samplename species race sex age disease	2006///7 Cultured cells Akylical astrocytes Rat Writer Uuknown Fetal day 16 None	

Finally in the "Protocol home" window, enter the User name (ex. morisawa), Password (\*\*\*\*) and Analysis method ID (ex. mori\_test) in each box, and click on "Go" button (**Fig.12**). Then the window of "Add analysis method data of mori\_test" appears. In this window, enter the each item, and click on "Add analysis method data" button (**Fig.27**). Then the window of "The insert of data is OK!" appears. In this window, click on "Analysis method list" link button. Then the window of "Analysis method list" appears.

TMIG Biomedi	cDB Proteomics	LIMS module
Home	Add anal	ysis method data of mori_test
Protocol home		[Back to protocol main page]
word search for tocol	Analysis method ID (Max 12 chara)	mori_test
	User name	morisawa
aterial list	Analysis method name	mori_test analysis method
l method list	Protein staining	
	Image analysis	
alysis method list	Spot cutting	
	In gel digestion	
hange password	Zip tip	
lministrator only	Ms	
	Date	2006/7/31
	Note	
	Add analysis method data	Clear

In the window, click on "Analysis method ID (ex. Toda\_org)" link button (**Fig.28**). Then the window of "Login for analysis method" appears. Enter the Password (\*\*\*\*), and click

on "Update or delete analysis method data" button (Fig.29). Then the window of "Update or delete analysis method data" appears. In this window, input experimental analysis method data in each box, and update or delete analysis method data(Fig.30). In addition, click on "Insert in 2DEPAGE map data" button, and then "2DPAGE map list" appears. In this window, click on the user's gel icon (ex. Mat\_Astro) (Fig.31). Then the window of "Login for 2DPAGE map (the insert of analysis method data)" appears. Enter the Password (\*\*\*\*), and click on "Update 2DPAGE map data (the insert of analysis method data)" button (Fig.32). Then the window of "Login for 2DPAGE map here window of "Login (Fig.32). Then the window of "Update Map Data of Mat\_Astro" appears. Input the data in each box, and click on "Update 2DPAGE map data" (Fig.33).

Method etc in TMIG PROTEOMI	E LIMS - Microsoft Internet E	xplorer					
Ele Edit View Favorites Iools	Help						<b>12</b>
🕒 Back • 🐑 · 💌 😰 🍕	🏠 🔎 Search   📩 Favorites	Mec Mec	ia 🚱 🔗 🍓			u	nks **
Address a http://172.17.204.11/2D/LI						Image: A start of the start	Go
тміс 🤗 Biomedic	DB Prot	eomi	ics LIMS 1	module			
Home			Analysis	method list			
Protocol home	Us	er name	Analysis method ID	Analysis method name	Date		
Keyword search for	mo	risawa	analysisHB	analysis for HumanBrain			
protocol	ttoo	ia	<u>Toda org</u>	Standard method	2006/7/10		
Material list	ttoo	la	test3		2006/8/2		
Gel method list Analysis method list Change password Administrator only							
Ē						Internet	Fig.2

	E LIMS - Microsoft Internet Explorer		
Ele Edit View Favorites Iools			<b>**</b> **
	🏠 🔎 Search 🤺 Favorites 🜒 Media 🚱	8· 4 2	Links
Address 🛃 http://172.17.204.11/2D/L	IMS/limsprep.html		🛩 🛃 Go
		IMS module	
Diomean			
Home Protocol home Keyword search for protocol Material list Gel method list Analysis method list Change password Administrator only Change password Administrator only Done	EDB       Logi         Logi       Logi         User name       toda         Analysis method ID       Toda         Password       Image: Comparison of the second of the seco	In for analysis method Ist	■ Fig.29
Home	Update	e or delete analysis method data	
Protocol home	V S N MA SANAGANAN ANA A	[Back to login page]	
Keyword search for	Analysis method ID (Max 12 chara)	loda_org	
protocol			
	User name	ttoda	
Material list	User name Analysis method name	ttoda Standard method	
Material list	User name Analysis method name Protein staining	toda Stendard method SYPRO Ruby	
Material list Gel method list	User name Analysis method name Protein staining Image analysis	tioda Standard method SYPRO Ruby PDOuest	
Gel method list	User name Analysis method name Protein staining Image analysis Spot cutting	tioda Stendard method SYPRO Ruby PDQuest EXQuest	
	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion	tioda Stendard method SYPRO Ruby PDOuest EXOuest Menuel according to the TMIG orinal method	
Gel method list	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip	tioda Stendard method SYPRO Ruby PDOuest EXOuest Menuel according to the TMIG orinal method None	
Gel method list	User name Analysis method name Protein statining Image analysis Spot cutting In gel digestion Zip tip Ms	toda Stendard method SryPRO Ruby PDOuest EXDuest Menual according to the TMIG orinal method None AMMA CFR	
<u>Gel method list</u> <u>Analysis method list</u>	User name Analysis method name Protein statining Image analysis Spot cutting In gel digestion Zup tip Ms Date	tioda Stendard method SYPRO Ruby PDOuest EXOuest Menuel according to the TMIG orinal method None	
Gel method list Analysis method list Change password	User name Analysis method name Protein statining Image analysis Spot cutting In gel digestion Zip tip Ms	toda Stendard method SryPRO Ruby PDOuest EXDuest Menual according to the TMIG orinal method None AMMA CFR	
Gel method list Analysis method list Change password	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip Ms Date Note	toda Stendard method SryPRO Ruby PDOuest EXDuest Menual according to the TMIG orinal method None AMMA CFR	
Gel method list Analysis method list Change password	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip Ms Date Note	toda Standard method StyPRO Ruby PDOuest EXQuest Manual according to the TMIG orinal method None AXMA CFR 2006/7/10 Jpdate analysis method data	
Gel method list Analysis method list Change password	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip Ms Date Note	toda Stendard method SYPRO Ruby PDOuest EXQuest Menual according to the TMIG orinal method None XMMA CFR 2006/7/10	2
Gel method list Analysis method list Change password	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip Ms Date Note	toda Standard method StyPRO Ruby PDOuest EXQuest Manual according to the TMIG orinal method None AXMA CFR 2006/7/10 Jpdate analysis method data	2
Gel method list Analysis method list Change password	User name Analysis method name Protein staining Image analysis Spot cutting In gel digestion Zip tip Ms Date Note	toda Standard method StyPRO Ruby PDOuest EXQuest Manual according to the TMIG orinal method None AXMA CFR 2006/7/10 Jpdate analysis method data	a Fig.30

ethod etc in TMIG PROTEO Edit Yew Favorites Tools Back • 🕥 • 💌 😰	s Help	Favorites Media	<i>€</i> ) ⊘	è 🖬			Links	
TMIG Biomedi		Proteomic	s LIM	IS module	8		v 🗗 Go	
Home	21	PAGE map		e insert of ar	-	hod data)	^	
eyword search for	Graphic input			Dack to analysis in	curou nat j			
otocol Iaterial list iel method list	Gamma_glob		shsy5y		ASTRO47S		ASTROR	
nalysis method list Change password	HUMANBRAIN		HUVEC		HumCSF-pool		MEDIUM.	
<u>administrator only</u>	MEDIUMR		Mat_Astro	法	NEURON47S		NEURON.	
	OLIGO47S		OLIGOR		PRIM47S		PRIMR	
	SHSY5Y						~	
		F-15 12				🔮 Intern	× ×	F

🗿 Method etc in TMIG PROTEOME LIMS - Microsoft Internet Explorer 📃 🖻 🔀 Ele Edit Yew Fgrontes Tools Help	
🔇 Back = 🕥 - 🗷 😰 🏠 🔎 Search 👷 Favorites 🌒 Media 🚱 😥 - 🍃 🚍 🛛 🛛 Linis 🎽	
Address 🙆 http://172.17.204.11/2D/LIMS/limsprep.html	
TMIG Proteomics LIMS module	
Login for 2DPAGE map (the insert of analysis method data)	
Protocol home [Back to 2DAPGE map list (the insert of analysis method data)]	
User name ttoda	
protocol Mat_Astro	
Password	
Material list Update 2DPAGE map data(the insert of analysis method data)	
Gel method list	
<u>Analysis method list</u>	
Change password	
Administrator only	
Administrator only	
Done Diterret	g.32

thod etc in TMIG PROTEOME LIMS - Microsof	t Internet Explorer	
Edit View Favorites Tools Help		**
	🛧 Favorites 🜒 Media 🤣 🍰 🔜	Links
s 🙋 http://172.17.204.11/2D/LIM5/limsprep.html		💌 🄁 Go
тмід 🤗 BiomedicDB	Proteomics LIMS module	
Home	Update Map Data of Mat_Astro	^
Protocol home	[ Back to login for 2DPAGE map (the insert of analysis method data) ]	
yword search for otocol		
Map ID	Met_Astro	
aterial list Useman	e ttoda	
Date	2006/7/7	
el method list <u>ialyzis method list</u> Map No	te	
Thange password Map ID	Mat_Astro	
dministrator only date	2006/7/7	
sampleform	Cultured cells	
samplenam	e Atypical astrocytes	
species	Rat	
race	Wister	
	Unknown	
sex		
age	Fetal day 16	
	Fetal day 16 None	
age		
age disease	None	

#### Chapter 4 Component parts

# 4-1. Home

The window of "Home" including "Add or update 1&2DE-gel data", "Add or update digestion plate data", "Add or update MS plate data" and "Add or update 2DPAGE map data".

# Enter "User name", "Password" and "ID number (1&2DE-gel ID, digestion plate, MS plate or 2DPAGE Map)", and click on "Go" button.

# 4-2. Keyword search

The window of "Keyword search" including "Search 1 & 2DE-gels for spot data", "Search digestion plates for well data", "Search MS plates for well data", "Search 2DPAGE database for spot data" and "Search 2DPAGE database for spot data (graph of protein expression)".

# Search by terms. Enter the term in each box, and click on "Search" button (Fig.34).

s 🙆 http://172.17.204.11/2D/LIM5/lim	is.html		💌 🔁 Go
TMIG SP BiomedicD	B Proteomics I	LIMS module	
Home		Keyword search	
Keyword search	Search 1 & 2	DE-gels for spot data	
&2DE-gel list	Enter the term		
igestion plate list	Search	SSP number, note, linked well ID etc.	
	Search digest	ion plates for well data	
<u>ES plate list</u>	Enter the term		
OPAGE map list	Search	Well ID, note, linked SSP number etc.	
	Search MS n	lates for well data	
Protocol	Enter the term		
	Search	Well ID, note, linked SSP number etc.	
	Search 2DPA	GE database for spot data	
	Enter the term		
	Search	Spot number, protein name, swissprot $\rm I\!D$ etc.	
	Search 2DPAGE da	tabase for spot data (graph of protein expres	sion)
	Enter the term :		
	Search Sg	oot number, protein name, swissprot ID etc.	

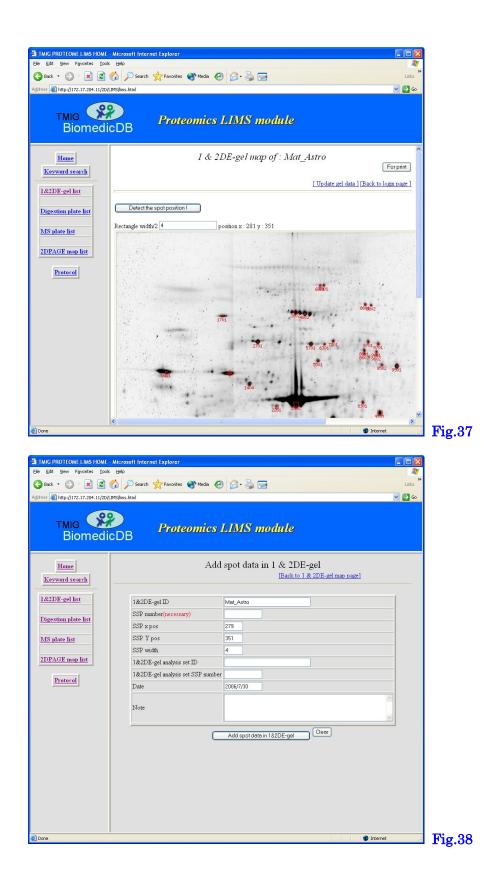
#### 4-3. Editing workflow data

4-3-1.The window of "1&2DE-gel list" including "User name", "1&2DE-gel ID", 1&2DE-gel name", "Date" and "Image" (Fig.35). If you select the 1&2DE-gel ID such as "Mat\_Astro", the window of "Login for 1&2DE-gel" will appear (Fig.36).

THIG PROTEONE LIMS HOME - Micros Ele Edt Yew Favortes Tools Help Back - O R E C A		) 🔗 🕹 🖃			Links	
Agtress THE HED. (1/172.17.204.11/20A.11/40Americ TMIG BiomedicDE	Drotoouion	LIMS modi	ıle		<b>N</b>	
Home		1 & 2DE-gel	list		^	
Keyword search	User name 1&2DE-gel	ID 1&2DE-gel name	Date	Image		
<u>1&amp;2DE-gel list</u> Digestion plate list	morisawa <u>Prim</u>	Prim	2004/10/15		н	
MS plate list 2DPAGE map list	morisawa <u>TIG3 1p</u>	TIG3_1p	2004/11/5			
Protocol	ttoda <u>1D cryo</u>	1D	2005/6/8			
	ttoda <u>Furu041128</u>	Furukawa-041128				
	ttoda <u>Gamma glo</u> l	Bovine gamma globu	lin	-		
<u>۵</u>	ttoda <u>Gastroc</u>	Gastrocnemius			iternet	Fig.35
TMIC PROTEOME LINKS HOME Micros Ele Edit yew Favorites Tools Hele C Book C Protection Provided And Address C Help-(//172.17.204.11/20/LINS/Gres.H TMIC C PROTECTION BiomedicDE	Soarch 🛧 Favorites 🌒 Moda 🍕 tmi Docataon united		ıle		Linis »	
Home	i,	Login for 1 & 21				
Keyward search 1&2DE-gel hst Digestion plate list MS plate list 2DPAGE map list Protocol	User Name toda 1&2DB-gel ID Mat _ Password Password		e 1&2DE-gel spot	i deta		
a) Done				ni 😋	ternet 🧮	Fig.36

# Enter the Password for "Add, update or delete 1&2DE-gel spot data", and then the window of "1&2DE-gel map of: Mat\_Astro" appears (Fig.37). When you want to make the new position on this window, detect the spot position by moving a pointing mouse cursor, and click on "Detect the spot position" button. Rectangular width can be changed in accordance with the size of the spot. Then the window of "Add spot data in 1&2DE-gel" appears, and input the data in each box (Fig.38). If you select the SSP number such as "2201" by moving a pointing mouse cursor, the window of "Update or delete spot data of 1&2DE-gel" will appear (Fig.39).

# Enter the Password for "Update or delete 1&2DE-gel data" (Fig.36). Then the window of "Update or delete 1&2DE-gel data of Mat\_Astro" appears.



🕥 - 💌 🗟 🏠 🔎 Search 🤸 Favorites 🔮 Media 🍕	v 🗗 🗤
()1/2.17.204.11/20/L1/05/ims.rkm	
AIG Proteomics	LIMS module
inte	ate or delete spot data of 1 & 2DE-gel [Back to 1 & 2DE-gel map page]
1&2DE-gel ID	Mat Astro
rel list SSP number	2201
	398
plate list	
Spot y posi	432
list Spot width	4
1&2DE-gel analysis set ID	
1822DE-gel analysis set 55P numb	er
Date	2006/05/25
Note	P60711 Beta-actin (P63259 Gamma-actin)
Digestion plate ID	Mat_Astro
Well ID(digestion plate)	A2
Detect Well (digestion plate)	
MS plate ID	Mat Astro
Well ID(MS plate)	A20
Detect Well (Ms plate)	
2DPAGE Map ID Spot number(2DPAGE MAP)	Mat_Astro 2201
Detect spot of 2DPAGE database	2201
Pelett spot of ZDPAGE database	Update spot data of 1&2DE-gel
	opune operand of factor get

4-3-2. The window of "Digestion plate list" including "User name", "Digestion plate ID", "Digestion plate name" and "Date" (**Fig.40**). If you select the Digestion plate ID such as "Mat\_Astro", the window of "Login for digestion plate " will appear (**Fig.41**).

	Proteo	mics LIM	S module		
BiomedicDB					
Home		Dige	stion plate list		
Keyword search	User name	Digestion plate ID	Digestion plate name	Date	
1	morisawa	morisawa 1	morisawa_1test	2004/10/19	
&2DE-gel list	ttoda	050530	Sasaki-1 (move to 050603)	2005/6/3	
	ttoda	050531	Sasaki-2 (move to 050603)	2005/6/3	
igestion plate list	ttoda	050601	Sasaki-3 (move to 050603)	2005/6/3	
FG 1 - 1 -	ttoda	050609	Irreversible (abnormal) cryoglobulin	2005/6/10	
<u>IS plate list</u>	ttoda	Furu041128	Furukawa-041128	2004/11/29	
DBACK PLAN	ttoda	HumCSF-pool-DP1	Human	2006/2/14	
DPAGE map list	ttoda	Mat Astro	Maturated-Astrocytes	2006/5/25	
	ttoda	Prim D0	Primary-Day0	2006/5/25	
Protocol	ttoda	test3	test3-plate	2006/7/31	
	ttoda	test4	test4-plate	2006/7/31	

THIG PROTEOME LIMS HOME - Mid			
Ele Edit View Favorites Tools H			<b>**</b> **
	🔎 Search 📩 Favorites 😵	Media 🚱 🔯 🌚	Links
Address Addres	Ams.html		💌 🔁 Go
TMIG SPACE Biomedic	DB Proteon	nics LIMS module	
		Login for digestion plate	
Home		[Back to digestion plate list]	
Keyword search			
1&2DE-gel list	User name	ttoda	
	Digestion plate ID	Mat_Astro	
Digestion plate list	Password		_
		Add, update or delete well data of digestion plate	
MS plate list	Password		_
2DPAGE map list		Update or delete digestion plate data	
2DFAGE map list			
Protocol			
崖 Done			Internet

# Enter the Password for "Add, update or delete well data of digestion plate", and then the window of "Digestion plate map of: Mat\_Astro" appears (Fig.42). When you want to make the new position on this window, detect the well position by moving a pointing mouse cursor, and click on "Detect the well position" button. Then the window of "Add well data of digestion plate" appears, and enter the corresponding 1&2DE-gel ID and SSP number (Fig.43). If you select a Well ID such as "D5" by moving a pointing mouse cursor, the window of "Update or delete well data of digestion plate" will appear (Fig.44).

# Enter the Password for "Update or delete digestion plate data" (Fig.41). Then the window of "Update or delete digestion data of Mat\_Astro" appears.

THIG PROTEOME LIMS HOME		xplorer												
File Edit Yiew Favorites Iools	🏠 🔎 Search 🤸	Favorite	s 💽 Me	dia 🧭	Ø• §	2							Links *	
Address & http://172.17.204.11/20/ TMIG Biomedi		Prot	eom	ics I	LIMS	S ma	odula	8				× 1	<b>}</b> 60	
Home Keyword search			Dig	gestio	n plat	e maj		_		plate dat	a] [Back	Ferprin	_	
<u>1&amp;2DE-gel list</u> Digestion plate list	Detect the we position x : 248 y :		nl											
MS plate list 2DPAGE map list		1	H Mat_Ast 6701	G roHat_Ast 8802	F Mat_Ast	E roMat_Ast	D Mat_Ast	C oMat_Ast	B oMat_Ast	A oMat_Ast			illi <sub>b</sub>	
Protocol		2	6701 Mat_Ast 8601	8802 rollat_Ast 9502	5103 p Mat_Ast 8701	8801 noMat_Ast 7701	9602 roflat_Ast 9701	8602 oMat_Ast 5201	6901 oMat_Ast 9601	6801	0			
		3 4	Mat_Ast 4802 Mat_Ast 0401	rollat_Ast 5701 rollat_Ast 9501	o Mat_Ast 5101 o Mat_Ast 7202	noMat_Ast 0001 noMat_Ast 6101	roMat_Ast 0002 roMat_Ast 2/01	oMat_Ast 1701 oMat_Ast 5102	roMat_Ast 5501 roMat_Ast 3802	roMat_Ast 8301 roMat_Ast 9201	0			
		5 6				+	Mat_Ast 3302	oMat_Ast 4001	roMat_Ast 7001	roMat_Ast 7201	0			
		7												
Done		8									🌍 Int		~	<b>Fig.42</b>
TMIG BIOTECNE	s Holp	<sup>•</sup> Favorites			ø∙ ≷ IMS		dule						Links <sup>29</sup>	
Home Keyword search				Add v	vell da	ta of (				map page	1			
1&2DE-gel list	Digestion p Well ID(ne				Mat_Astro E5	,						_		
Digestion plate list	Well x pos				248									
<u>MS plate list</u>	Well Y po Well width				307 25							_		
2DPAGE map list	1&2DE-g		mber											
Protocol	1&2DE-g	l analysi	s set ID											
	1&2DE-ge Date	el analysi	s set SSP		2006/9/22							_		
	Note													
	Ad	d well da	ta in diges	stion plate										
الله المراجع (المراجع المراجع ا											🍘 Inte	arnet		Fig.43
				-							<b>-</b>			r18.49

• 🕥 - 💌 🛃 🍕	🏠 🔎 Search 🤺 Favorites 🜒 Media 🥝	1 2 · 4 2	Links
http://172.17.204.11/2D/LI	MS/lims.html		💙 🛃 Go
TMIG Biomedic	Proteomics I	LIMS module	
Home	Update or o	lelete well data of digestion plate	
ord search	Concerned and Co	[Back to digestion plate map page]	
	Digestion plate ID	Met Astro	
-gel list	Well ID	D5	
on plate list	Well n posi	301	
r plate Lat	Well y posi	307	
te list	Well width	25	
	1&2DE-gel ID	Met_Astro	
<u>E map list</u>	1&2DE-gel SSP number	3302	
	1&2DE-gel analysis set ID		
otocol	1&2DE-gel analysis set SSP number		
	Date	2006/05/25	_
		2004/04/20	
	Note		~
	Detect spot(1&2DE-gel)		
	MS plate ID	Mat_Astro	
	Well ID(MS plate) Detect Well (Ms plate)	D23	
	2DPAGE map ID	Mat Astro	
	Spot number(2DPAGE map)	3302	
	Detect spot of 2DPAGE database	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
		Update well data of digestion plate	

4-3-3. The window of "MS plate list" including "User name", "MS plate ID", "MS plate name" and "Date" (Fig.45). If you select the MS plate ID such as "Mat\_Astro", the window of "Login for MS plate " will appear (Fig.46).

Edit View Favorites Icols Help Back -	Search 🤺 Favorites  ဈ Media	a .			Links
ess 🗃 http://172.17.204.11/2D/LIMS/lims.h	tml				💌 🛃 GO
TMIG SP BiomedicDE	Proteomic	es LIM.	S module		
Home		М	S plate list		
Keyword search	User name	MS plate ID	MS plate name	Date	
	mhirota	hirota1		2006/6/9	
1&2DE-gel list	mhirota	hirota6	hiro	2006/6/9	
		morisawa 001		2004/11/1	
Digestion plate list	ttoda	050613	Abnormal Cryo IgG	2005/6/15	
	ttoda	Mat Astro	Maturated	2006/5/26	
MS plate list	ttoda	Prim D0	Primary neural cells at Day0	2006/5/26	
	ttoda	Toda040516	Rat muscle 2-D	2005/6/3	
2DPAGE map list	ttoda	Toda040601	Toda040601	2004/11/29	
	ttoda	test3	test3-plate	2006/7/31	
Protocol	ttoda	ttoda1	ttodal	2004/10/16	
	1		1		

TMIG PROTEOME LIMS HOME - Microsoft I	nternet Explorer	
Ele Edit View Favorites Iools Help		27
🔇 Back + 🔘 - 💌 📓 🏠 🔎 Se	arch 👷 Favorites 🜒 Media 🕢 🍰 - 🖕 🔜	Links
Address a http://172.17.204.11/2D/LIMS/lims.html		💌 🛃 Go
TMIG 🤗 BiomedicDB	Proteomics LIMS module	
Home	Login for MS plate	
Keyword search	[Back to MS plate list ]	
Keyword search		
1&2DE-gel list	User name ttoda	
	MS plate ID Mat_Astro Password	
Digestion plate list	Add, update or delete well data of MS plate	
MS plate list	Password	
NIS plate list	Update or delete MS plate data.	
2DPAGE map list	Opdale of delete MS plate data	
Protocol		
Done	🔮 Inter	Fig.4

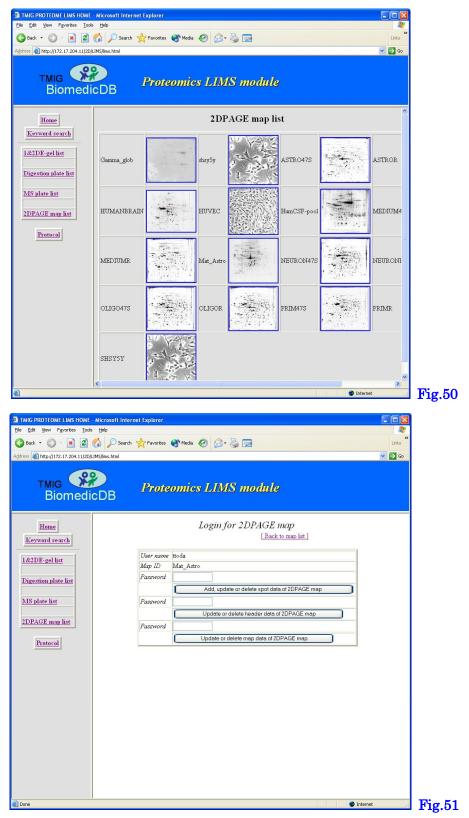
# Enter the Password for "Add, update or delete well data of MS plate", and then the window of "MS plate map of Mat\_Astro" appears (Fig.47). When you want to make the new position on this window, detect the well position by moving a pointing mouse cursor, and click on "Detect the well position" button. Then the window of "Add well data of MS plate" appears, and enter the corresponding digestion plate ID and well ID (Fig.48). If you select the Well ID such as "D23" by moving a pointing mouse cursor, the window of "Update or delete well data of MS plate" will appear (Fig.49).

# Enter the Password for "Update or delete MS plate data" (Fig.41). Then the window of "Update or delete MS plate data of Mat\_Astro" appears.

	D/LIM5/lims.h	emi																_	🚩 🛃 Go	, 
тміс Biomed		3	ŀ	rot	teor	mie	es I	(.II)	ſS	mo	du	le								
Home Keyword search						1	MSI	olate	e me	ip oj	f Mc	ut_A	stro					Fc	ar print	
													[Upd	ate M:	5 plate	data]	[Bacl	c to log	in page]	
&2DE-gel list						_														
gestion plate list		Detect th			in I															
<u>S plate list</u>	positio	n x : 47	8 y:8 P	87 0	N	М	L	к	J	T	Н	G	F	E	D	C	В	A	1	÷.
PAGE map list		1		0		m				Ė			r T					Ê		
Protocol		2		-		-								$\vdash$			$\vdash$			
11000001		3																		
		4																		
		5					- 6													
		6													1					
		7																		
		8																		
		9					1													
		9					<u> </u>	-	<u> </u>		-	-	-			_		-		

TMIG PROTEOME LIMS HOME - I			
Eile Edit Yiew Favorites Iools	Help		29 Links
Address Address Address			💌 🛃 Go
00			
	Proteomic	s LIMS module	
Biomedic	DB		
		Add multidate of MC plate	
Home		Add well data of MS plate [Back to MS plate map page]	
Keyword search	MS plate ID	Mat_Astro	
1&2DE-gel list	Well ID(necessary)	E23	
Digestion plate list	Well 11 pos	478	
	Well Y pos	887	_
MS plate list	Well width Digestion plate ID	18	-
2DPAGE map list	Well ID of digestion plate		
	Date	2006/7/29	-
Protocol	Note		
			1
	(	Add well data in MS plate	
🙆 Done		Intr	Fig.48
			11g.10
THIS PROTEOME LINS HOME - I	Microsoft Internet Explorer		
Eile Edit View Favorites Tools			20
	🏠 🔎 Search 🤺 Favorites   Media	Ø ≥ ·	Links
Address 🕘 http://172.17.204.11/2D/LIN	45/lims.html		Co
Biomedic	DB Proteomic	s LIMS module	
Biomodic			
Home	Updat	te or delete well data of MS plate	<u>^</u>
Keyword search		[Back to MS plate map page]	
	MS plate ID	Mat_Astro	
1&2DE-gel list	Well ID	D23	
Digestion plate list	Well x posi	516	
	Well y posi	887	
<u>MS plate list</u>	Well width	18	
2DPAGE map list	Digestion plate ID	Mat_Astro	
	Well ID(digestion plate) Date	D5	
Protocol		2006/5/26	
	Note		1941 - 1942 - 19
		-emf <u>Download MS data file</u> n/pdf <u>Download protein identification file</u>	
	1&2DE-gel ID	Mat_Astro	
	SSP number(1&2DE-gel)	3302	
	Detect spot (2DE-gel) Digestion plate ID	Mat Astro	
	Well ID(digestion plate)	D5	
	Detect Well (digestion plate)	Mat Astro	
	2DPAGE map ID Spot number(2DPAGE map)	Mat_Astro 3302	
	Detect spot of 2DPAGE databa	<u>se</u>	
		Update well data of MS plate	
Done	(k		Fig.49

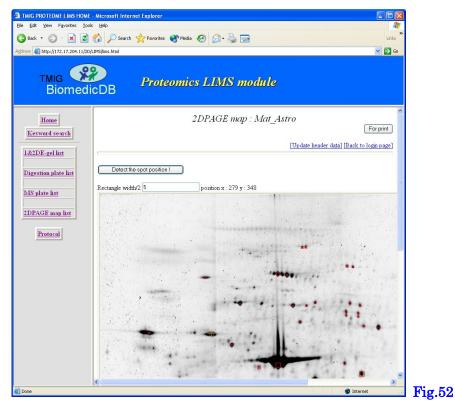
4-3-4. The window of "2D-PAGE map list" (**Fig.50**). If you select 2DPAGE map such as "Mat\_Astro", the window of "Login for 2DPAGE map" will appear.



# Enter the Password for "Add, update or delete spot data of 2DPAGE map" (Fig.51). Then the window of "2DPAGE map : Mat\_Astro" appears (Fig.52). In this window, click on "Disp spot number" link button, the spot numbers appear. When you want to make the new position on this window, detect the spot position by moving a pointing mouse cursor, and click on "Detect the spot position" button. Rectangular width can be changed in accordance with the size of the spot. Then the window of "Add spot data in 2DPAGE

map" appears, and enter the corresponding MS plate ID, well ID and other data in each box (**Fig.53**). If you select the spot number such as "2201" by moving a pointing mouse cursor, the window of "Update or delete spot data of 2DPAGE map" will appear (**Fig.54**). When you click on "Detect Well (digestion plate)" link button, the window of "Well data in digestion plate" appears (**Fig.55**). Cross mark shows the well of "A2".

# Enter the Password for "Update or delete header data of 2DPAGE map" or "Update map data of 2DPAGE map" (Fig.51). Then the window of "Update header data of 2DPAGE map" or "Update Map data of Mat\_Astro" appears.



THIS PROTEOME LIMS HOME		ti Explorer	
Ele Edit View Favorites Tool		4	20
		📩 Favorites 🜒 Media 🤣 🍰 🗟	
Address 🚳 http://172.17.204.11/20/	LIMS/lims.html	💌 🔁 G	-
.0	0		
		Proteomics LIMS module	
Biomedi	cDB		
			~
Home		Add Spot Data ( 2DPAGE map)	
Keyword search		[Back to 2DPAGE map page]	
	Map name	Mat_Astro	
1&2DE-gel list	Spot number		
Digestion plate list	(necessary)		
	Protein name (necessary)		
<u>MS plate list</u>	Mol mass		
2DPACE men list	Theoretical		<b>=</b>
2DPAGE map list	mol. mass pI		
Protocol	Theoretical pI		
	Spot z pos	280	
	Spot Y pos	350	
	Spot width	5	
	Prot.		
	expression 1		
	at state 1 Prot.		
	expression 2		
	at state 2		
	Enzyme		
	Peptide mass		
	1 opinio mare		
E Done		🔮 Internet	<b>Fig.53</b>
Back -      C     Back -      P     Back -      Back -		Frontes & Meds @ D. & 20 20 20 20 20 20 20 20 20 20 20 20 20	
Home		Update or delete spot data of 2DPAGE map [Back to 2DPAGE map page]	
Keyword search	Map name	Mat_Astro	
1&2DE-gel list	Spot number	2201	
Digestion plate list	Protein name	2201	
Sagestion plate list	Mol mass		
<u>MS plate list</u>	Theoretical mol. mass		
ADDA CIP	pI		
2DPAGE map list	Theoretical pI		
Protocol	Spot x pos	398	
	Spot y pos	432	
	Spot width	4	
	Prot.		
	expression 1 at state 1		
	at state 1 Prot.		
	expression 2		
	at state 2		
	Enzyme		
	Peptide Mass		
	1 • • • • • • • • • • • • • • • • • • •		
Done		v v v v v v v v v v v v v v v v v v v	Fig.54

* • 🔘 · 🖹 🗟 🎸	Search 📌 Favorite:	Me	dia 🚱	10.1							» Links
http://172.17.204.11/2D/LIMS		•	0	P							🗸 🔁 @0
тміс 🤗 Biomedic	DB Prot	eom	ics l	LIMS	5 <i>m</i> o	dul	9				
Home			v	Vell data	in dig	estion	plate				
Keyword search			7	ack to the			1	tabase ]			
&2DE-gel list				Digestion WellID	plate ID	Mat_A A2	stro				
igestion plate list				Date		2006/0	5/25				
igestion plate list				Note							
<u>IS plate list</u>		Н	G	F	Е	D	C	В	Α		
DPAGE map list	1	Mat_Ast 6701	oflat_Ast 8802	roMat_Ast 5103	oMat_Ast 8801	oMat_Ast 9602	oMat_Ast 8602	oMat_Ast 6901	oMat_Ast 6801	0	
Protocol	2	Mat_Ast 8601	rollat_Ast 9502	roMat_Ast 8701	oMat_Ast 7701	oMat_Ast 9701	oMat_Ast 5201	oMat_Ast 9601	oMati Ast 2201	0	
	3	Mat_Ast 4802	rollat_Ast 5701	roMat_Ast 5101	oMat_Ast 0001	dMat_Ast 0002	oMat_Ast 1701	oMat_Ast 5501	oMat_Ast 8301	0	
	4	Mat_Ast 0401	oroflat_Ast 9501	roMat_Ast 7202	oMat_Ast 6101	oMat_Ast 2701	oMat_Ast 5102	oMat_Ast 3002	oMat_Ast 9201	0	
	5					Mat_Ast 3302	oMat_Ast 4001	oMat_Ast 7001	oMat_Ast 7201	0	
	6										
	7										
				1				1			

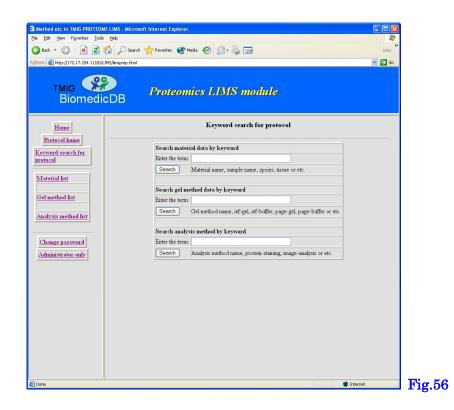
#### 4-4. Protocol data

4-4-1. The window of "Protocol Home" including "Add or update material data", "Add or update gel method data" and "Add or update analysis method data".

# Enter "User name", "Password" and "ID number (material ID, method ID or analysis ID) ", and then click on "Go" button (Fig.12).

4-4-2. The window of "Keyword search for protocol" including "Search material data by keyword", "Search gel method data by keyword" and "Search analysis method by keyword"

# Search by terms. Enter the term in each box, and click on "Search" button (Fig.56).



4-4-3. The window of "Material list" including "User name", "Material ID", "Material name" and "Date".

# If you select the Material ID such as "Mat\_Astro", the window of "Login for Material" will appear. Enter the Password, and then the window of "Update and delete material data of Mat\_Astro" appears.

4-4-4. The window of "Gel method list" including "User name", "Method ID", "Gel method name" and "Date".

# If you select the Method ID such as "Standard\_2DE", the window of "Login for gel method " will appear. Enter the Password, and then the window of "Update and delete gel method data of Standard\_2DE" appears.

4-4-5. The window of "Analysis method list" including "User name", "Analysis ID", "Analysis method name" and "Date".

# If you select the Method ID such as "Toda\_org", the window of "Login for analysis method" will appear. Enter the Password, and then the window of "Update or delete analysis method data" appears.

#### 4-5. Change user password

When you need to change "User Password", enter "User name" and "Password", and click on "Enter user name & password" button (Fig.57). Then the window of "Enter new password" appears. In this window, enter "New password" in each box.

Edit yee       Favorites tools Belo         Back. • O • South & Favorites & Media & O or South & Favorites & Favor
See http://172.17.204.11/20AUM5/Imperpe.html TMIG See Change User password Home Protocol home See Word Search for rotarol User name Password Enter user name & password
Image in the proteomics LIMS module         Hone       Change user password         Proteo hone       Change user password         ierword search for totacol       Enter user name & password         Idaterial list       Enter user name & password
BiomedicDB     Change user password       Frotocol home
BiomedicDB     Change user password       Frotocol home
Protocol home User name Password Password Enter user name & password Idaterial list del method list
User name User name Password Caterial list Cel method list
evword search for rotocol     Password       Vaterial list       Gel method list
Vaterial list Jel method list
Jel method list
inalysis method list
Change password Administrator only
Automotivation outry
one 🔮 Internet

## 4-6. Administrator only

Only the administrator is allowed to use the window of "Add or delete user" (Fig.58). A new user is also able to be registered on this window (Fig.59).

Method etc in TMIG PROTEOMI	E LIMS - Microsoft Internet Explorer	
Ele Edit View Favorites Tools		
	🏠 🔎 Search 🧙 Favorites 🜒 Media 🤣 🎯 - 🌺 🚍	Links
Address 🕘 http://172.17.204.11/2D/LI	MS/linsprep.html	🔁 Go
TMIG Biomedic	DB Proteomics LIMS module	
Home	Add or delete user	
Protocol home	Administrator name	
Keyword search for protocol	Password	
	Enter administrator name & password	
Material list		
Gel method list		
Analysis method list		
Change password		
Administrator only		
<u></u>		
Done	🔮 Internet	<b></b> Fig.58

Method etc in TMIG PROTEOME LIMS -	Microsoft Internet Explorer						
Eile Edit Yiew Favorites Iools Help		AT					
🌀 Back 🔹 🐑 - 💽 📓 🏠 🔎	Search 🤺 Favorites 🜒 Media 🚱 🎯 - چ 🥽	Links					
Address @ http://172.17.204.11/20/LWS/Imsprep.html							
тміс 🔅 BiomedicDB	Proteomics LIMS module						
Home	Add or update user						
Protocol home	[Back to Administrator page]						
Keyword search for protocol	User Name						
	Password						
Material list	Re password						
	Affiliation						
Gel method list	Note						
Analysis method list	Add or update user						
	Delete user						
Change password Administrator only	User Name Delete user						
Done 8		• Internet					

Chapter 5. Installation

5-1 Setup

Software requirements : Apache revision 1.3.34 or later, PostgreSQL revision 7.4.3 or later, PHP revision 4.3.7 or later, GD library revision 2.0.27 or later. Please install them in advance.

And please set up as follows.

Please edit /usr/local/lib/php.ini register\_globals = On

#tar xvzf LIPAGE\_\*\*\*\*.tar.gz
#mv LIMS /usr/local/apache/htdocs
#cd /usr/local/apache/htdocs/LIMS
#su postgres
\$createdb proteomedb

Please create and edit the first line in limsuser.back.

admin ID [tab] password [tab] affiliation [tab] occupational description [tab] admin(Input as a word)

[ Using an example of user data:
#cp limsuser.euc limsuser.back
Usernames of the LIMS are toda and hmorisawa. The passwords are bmc27info and bmc36info. ]

\$psql f createlimstable.sql proteomedb
The top page of the LIMS is http://servername/LIMS/lims.html.

5-2 Apache-PHP-PostgreSQL installation instruction using source files

The following description is applicable to Fedora Core 5.

Please install rpm-packages of gcc and environments for developments, first. Please download each source files of apache\_1.3.35.tar.gz, php-5.1.2.tar.gz, gd-2.0.33.tar.gz, jpegsrc.v6b.tar.gz, libpage1.2 from the intermed

libpng-1.2.6rc5.tar.gz and postgresql-8.1.3.tar.gz from the internet.

The download sites in the Internet

http://www.apache.org/ http://www.php.net/ http://www.boutell.com/gd/ ftp://ftp.uu.net/graphics/jpeg/ http://www.libpng.org/pub/png/libpng.html http://www.postgresql.org/ [Apache installation]

#tar xvzf apache\_1.3.35.tar.gz
#cd apache\_1.3.35
#OPTIM="-O2" ./configure --enable-module=so
#make
#make install
#vi /usr/local/apahche/conf/httpd.conf

ServerName \*\*\*\*\*\*\*\*

(Enter a right name of server)

#vi /etc/rc.d/rc.local

/usr/local/apache/bin/apachectl start

(The line is added)

#### [PostgreSQL installation]

#adduser postgres
#passwd postgres
#mkdir /usr/local/src/postgresql-8.1.3
#chown postgres /usr/local/src/postgresql-8.1.3
#mkdir /usr/local/pgsql
#chown postgres /usr/local/pgsql
#su -postgres
\$cd /usr/local/src
\$tar xvfz postgresql-8.1.3.tar.gz
\$cd /usr/local/src/postgresql-8.1.3
\$./configure
\$make
\$make install

\$vi /home/postgres/.bashrc

PATH="\$PATH":/usr/local/pgsql/bin export POSTGRES\_HOME=/usr/local/pgsql export PGLIB=\$POSTGRES\_HOME/lib export PGDATA=\$POSTGRES\_HOME/data export MANPATH="\$MANPATH":\$POSTGRES\_HOME/man export LD\_LIBRARY\_PATH="\$LD\_LIBRARY\_PATH":"PGLIB"

\$source ~/.bashrc \$initdb \$ cd /usr/local/pgsql/data \$chmod 600 pg\_hba.conf \$vi pg\_hba.conf (Add #) #host all all ::1/128ident sameuser (The line is host all 0.0.0.0 0.0.0.0 trust added)

\$su -#vi /etc/rc.d/rc.local

> rm /tmp/.s.PGSQL.\* su - postgres -c "postmaster -S -i"

( The line is added ) ( The line is added )

[zlib installation]

#tar xvzf zlib-1.2.1.tar.gz
#cd zlib-1.2.2
#./configure --shared
#make
#make
#make install

[JPEG-6b installation] #tar xvzf jpegsrc.v6b.tar.gz #cd src/jpeg-6b #./configure --enable-shared --enable-static #make #make install

[libpng installation] #tar zxf libpng-1.2.6rc5.tar.gz #cd libpng-1.2.6rc5 #cp scripts/makefile.linux makefile #vi makefile

ZLIBLIB=/usr/local/lib ZLIBINC=/usr/local/include #ZLIBLIB=../zlib #ZLIBINC=../zlib (The line is added) (The line is added) (Add #) (Add #)

#make #make install

[GD installation]

#tar xvzf gd-2.0.28.tar.gz
#cd gd-2.0.28
#./configure
#make
#make
#make install

[PHP installation]

#tar xvzf php-5.1.2.tar.gz

#cd php-5.1.2./configure --with-pgsql --with-apxs=/usr/local/apache/bin/apxs
--enable-mbstr-enc-trans --enable-mbstring --enable-mbregex --enable-versioning
--with-zlib-dir=/usr/local/lib --with-gd --with-jpeg-dir=/usr/local/lib
#make
#make install

#cp php.ini-dist /usr/local/lib/php.ini
#vi /usr/local/apache/conf/mime.types

application/x-httpd-php php application/x-httpd-source phps (The line is added) (The line is added)

#cd ext/pgsql
#phpize
#aclocal
#./configure
#make
#make
EXTENSION\_DIR=/usr/local/lib/php/extensions install
#vi /usr/local/lib/php.ini

extension\_dir = /usr/local/lib/php/extensions
extension = pgsql.so
register\_globals = On

( <- extension\_dir = ./ )
 ( The line is added )
 ( The line is added )</pre>

-----

#tar xvzf LIPAGE\_\*\*\*\*.tar.gz
#mv LIMS /usr/local/apache/htdocs
#cd /usr/local/apache/htdocs/LIMS
#cp limsuser.euc limsuser.back
#su postgres
\$createdb proteomedb
\$createuser nobody

[ Using an example of user data: #cp limsuser.euc limsuser.back

Usernames of the LIMS are toda and hmorisawa. The passwords are bmc27info and bmc36info.]

\$psql -f createlimstable.sql proteomedb
The setup finished. The top page of the LIMS is http://servername/LIMS/lims.html.

5-3 Apache-PHP-PostgreSQL installations instruction using rpm packages on Fedora Core 4 and 5

The following description is applicable to Fedora Core 4 and 5. Please select workstation install in installation type on Fedora Core 4 or 5

Please set up as follows.

#yum -y install httpd php php-gd php-pgsql
#yum -y install postgresql postgresql-server
#chkconfig httpd on
#chkconfig postgresql on

Please config vi /etc/http User nob Group no	d/conf/l ody	nttpd.co	-	ache )					
vi /etc/php.									
register_	register_globals = On (<- register_globals = Off)								
vi /var/lib/p	gsql/da	ata/pg_l	hba.conf						
#host	all	all	::1/128	ident	sameuser	(Add #)			
host	all	all	0.0.0.0	0.0.0.0	trust	( The line is added )			
Please reboot	•								
Please set up	as foll	ows.							
			*.tar.gz						
#tar xvzf LIPAGE_****.tar.gz #mv LIMS /var/www/html									
#cd /var/www/html/LIMS									
#cp limsuser.euc limsuser.back									
#su postgres									
\$createdb proteomedb									
\$createu	ser nob	ody							

Using an example of user data:
 #cp limsuser.euc limsuser.back
 Usernames of the LIMS are toda and hmorisawa. The passwords are bmc27info and bmc36info. ]

\$psql -f createlimstable.sql proteomedb
The setup finished. The top page of the LIMS is http://servername/LIMS/lims.html.