

# The 48th Annual Meeting of the Japanese Society for Spine Surgery and Related Research

## The First Day—April 18 (Thursday)

| Venue             |   | 7 : 00             | 8 : 00  | 9 : 00  | 10 : 00  | 11 : 00  | 12 : 00   |
|-------------------|---|--------------------|---|---|--|--|---|
| Conference Center | Room 1<br>Main Hall<br>(1F)                         | Opening<br>Remarks | Symposium 1<br>Selection of surgical method for adult spinal deformity- LLIF or osteotomy<br>Moderator : Yukihiko Matsuyama, Hiroshi Taneichi<br>Speaker : Kazuhiro Hasegawa, Satoshi Inami, Yu Yamato, Tetsuro Ohba, Kei Miyamoto<br>P.147~149 |   | Expert Technical Note 1<br>Treatment strategy<br>Moderator : Kazuhiro Chiba, Masahiko Watanabe<br>Speaker : Toshitaka Yoshii, Masatoshi Hoshino, Kazuo Nakanishi, Yu Yamato<br>P.149~151 |  | Luncheon Seminar 1<br>Moderator : Masashi Yamazaki<br>Speaker : Kazuhiro Chiba<br>P.151               |
|                   | Room 2<br>503<br>(5F)                               |                    | Main Theme 1<br>Regenerative medicine for spine and spinal cord diseases<br>Moderator : Miho Sekiguchi<br>P.153~156   | Main Theme 2<br>Science of chronic low back pain<br>Moderator : Mamoru Kawakami<br>P.156~159        | Main Theme 3<br>Epidemiological survey of spine and spinal cord diseases<br>Moderator : Shoji Yabuki<br>P.159~162  | Main Theme 4<br>Progress of innovative image diagnosis for spine and spinal cord diseases<br>Moderator : Seiji Ontori<br>P.162~165 | Luncheon Seminar 2<br>Moderator : Yoichi Shimada<br>Speaker : Manabu Ito, Kentaro Fukuda<br>P.165~166 |
|                   | ★English Presentation Room<br>Room 3<br>501<br>(5F) |                    | English Presentation Award 1<br>Moderator : Manabu Ito<br>P.170~174   | English Presentation Award 2<br>Moderator : Mitsuru Yagi<br>P.174~178                               | English Presentation Award 3<br>Moderator : Ken Ishii<br>P.179~182   | Luncheon Seminar 3<br>Moderator : Morio Matsumoto<br>Speaker : Takachika Shimizu<br>P.183  |   |
|                   | Room 4<br>502<br>(5F)                               |                    | Invited Lecture 1<br>Moderator : Toru Hasegawa<br>Speaker : Leon Sakuma<br>P.197  | Invited Lecture 2<br>Moderator : Takachika Shimizu<br>Speaker : Shih-Tien Wang<br>P.197             | Invited Lecture 3<br>Moderator : Daisuke Togawa<br>Speaker : Christoph J. Siepe<br>P.198   | Luncheon Seminar 4<br>Moderator : Kazuhiro Hasegawa<br>Speaker : Shimosuke Nakahara<br>P.198                                       |   |
|                   | Room 5<br>301<br>(3F)                               |                    | Free Papers 1<br>Scoliosis: basic research<br>Moderator : Hideki Sudo<br>P.200~202  | Free Papers 2<br>Scoliosis: epidemiology<br>Moderator : Tsutomu Akazawa<br>P.203~205                | Free Papers 3<br>Scoliosis: surgical plan<br>Moderator : Satoru Demura<br>P.206~208  | Free Papers 4<br>Complication measure<br>Moderator : Jun Takahashi<br>P.209~211  | Luncheon Seminar 5<br>Moderator : Hiroaki Nakamura<br>Speaker : Kei Watanabe<br>P.212                 |
|                   | Room 6<br>302<br>(3F)                               |                    | Free Papers 6<br>Osteoporosis 1<br>Moderator : Koichiro Okuyama<br>P.216~218  | Free Papers 7<br>Osteoporosis 2<br>Moderator : Itaru Oda<br>P.219~221                               | Free Papers 8<br>Spinal alignment<br>Moderator : Masahiko Takahata<br>P.222~224  | Free Papers 9<br>Alignment of pelvis and spine<br>Moderator : Tadatsugu Morimoto<br>P.225~227                                      | Luncheon Seminar 6<br>Moderator : Masaya Nakamura<br>Speaker : Takashi Kaito<br>P.228                 |
|                   | Room 7<br>303<br>(3F)                               |                    | Free Papers 11<br>Cervical radiculopathy<br>Moderator : Yasuhisa Tanaka<br>P.232~234  | Free Papers 12<br>Cervical spine: preoperative evaluation<br>Moderator : Fumihiko Kato<br>P.235~237 | Free Papers 13<br>Cervical spine: diagnosis and evaluation 1<br>Moderator : Kazumasa Ueyama<br>P.238~240   | Free Papers 14<br>Cervical spine: diagnosis and evaluation 2<br>Moderator : Atsushi Ono<br>P.241~243                               | Luncheon Seminar 7<br>Moderator : Hideki Nagashima<br>Speaker : Harumi Yano<br>P.244                  |
|                   | Room 8<br>304<br>(3F)                               |                    | Free Papers 16<br>Minimally invasive surgery 1<br>Moderator : Yasuo Mikami<br>P.248~250   | Free Papers 17<br>Minimally invasive surgery 2<br>Moderator : Takato Aihara<br>P.251~253            | Free Papers 18<br>Minimally invasive surgery 3<br>Moderator : Yasuchika Aoki<br>P.254~256  | Free Papers 19<br>Lumbar disc herniation<br>Moderator : Toshimi Aizawa<br>P.257~259  | Luncheon Seminar 8<br>Moderator : Jun Takahashi<br>Speaker : Sohei Ebara<br>P.260                     |
|                   | Room 9<br>311+312<br>(3F)                           |                    | Free Papers 21<br>Metastatic spinal tumor 1<br>Moderator : Hideo Hosoe<br>P.264~267   | Free Papers 22<br>Metastatic spinal tumor 2<br>Moderator : Kotaro Nishida<br>P.267~270              | Free Papers 23<br>Metastatic spinal tumor 3<br>Moderator : Shinsuke Katoh<br>P.270~273   | Free Papers 24<br>Primary spinal tumor and radiation therapy<br>Moderator : Muneharu Ando<br>P.273~276                             | Luncheon Seminar 9<br>Moderator : Takeshi Maeda<br>Speaker : Katsushi Takeshita<br>P.276              |
|                   | Room 10<br>315<br>(3F)                              |                    | Free Papers 26<br>Ligamentous ossification of thoracic spine<br>Moderator : Shiro Imagama<br>P.281~283  | Free Papers 27<br>Lumbar spine: diagnostic imaging<br>Moderator : Yasuaki Imajo<br>P.284~286        | Free Papers 28<br>Lumbar spine: postoperative complication<br>Moderator : Akiyoshi Yamazaki<br>P.287~289   | Free Papers 29<br>Postoperative ADL and QOL<br>Moderator : Takashi Asazuma<br>P.290~292  | Luncheon Seminar 10<br>Moderator : Hidetomi Terai<br>Speaker : Toshiaki Kotani<br>P.293               |
| Exhibition Hall   | Poster Area<br>Exhibition Hall A                    | Poster Preparation |   |   |  | 00   | Poster Display  |

Congress Presidential Lecture  
 Moderator : Hiroaki Nakamura  
 Speaker : Hiroataka Haro

🌀 : Interpretation Available (Japanese to English)

| 13:00 | 14:00                  | 15:00  | 16:00  | 17:00   | 18:00 | 19:00 | 20:00 |
|-------|------------------------|--|--|---|-------|-------|-------|
|       | 50<br>Business Meeting | 20<br>Cultural Lecture<br>Moderator : Hiroataka Haro<br>Speaker : Seiichi Koshimizu<br>P.152                     | 50<br>P.152<br>Congress Presidential Lecture<br>Moderator : Hiroaki Nakamura<br>Speaker : Hiroataka Haro | Afternoon Seminar 1<br>Moderator : Toshihiko Taguchi<br>Speaker : Shinichi Konno<br>P.153 |       |       |       |
|       |                        | 00<br>Main Theme 5 48<br>Standards to treat adult spinal deformity<br>Moderator : Kazuhiro Hasegawa<br>P.166~169 | Afternoon Seminar 2<br>Moderator : Hiroshi Yamada<br>Speaker : Hiroshi Taneichi<br>P.169                 |   |       |       |       |
|       |                        | 40<br>English Presentation Award 4<br>Moderator : Yoshiharu Kawaguchi<br>P.184~187                               | 44<br>English Presentation Award 5<br>Moderator : Hiroshi Ozawa<br>P.188~191                             | 04 15<br>English Presentation Award 6<br>Moderator : Hideki Murakami<br>P.192~196         |       |       |       |
|       |                        | 50<br>Invited Lecture 4<br>Moderator<br>Speaker : Ibrahim Obeid<br>P.199   | 50<br>Afternoon Seminar 3<br>Moderator : Tokumi Kanemura<br>Speaker : Akira Shinohara<br>P.199           | 00  |       |       |       |
|       |                        | 00<br>Free Papers 5 48<br>Postoperative alignment<br>Moderator : Koki Uno<br>P.212~215                           | Afternoon Seminar 4<br>Moderator : Shoichi Ichimura<br>Speaker : Hiroataka Chikuda<br>P.215              |   |       |       |       |
|       |                        | Free Papers 10<br>Low back pain<br>Moderator : Kazuyuki Otani<br>P.228~231                                       | Afternoon Seminar 5<br>Moderator : Atsushi Okawa<br>Speaker : Naohisa Miyakoshi<br>P.231                 |   |       |       |       |
|       |                        | Free Papers 15<br>Cervical spine: treatment outcome<br>Moderator : Yasushi Fujiwara<br>P.244~247                 | Afternoon Seminar 6<br>Moderator : Norio Kawahara<br>Speaker : Tomohiko Hasegawa<br>P.247                |   |       |       |       |
|       |                        | Free Papers 20<br>Computer-assisted surgery<br>Moderator : Toshiaki Kotani<br>P.260~263                          | Afternoon Seminar 7<br>Moderator : Akihito Wada<br>Speaker : Yasuo Ito, Kanichiro Wada<br>P.263~264      |   |       |       |       |
|       |                        | Free Papers 25<br>Destructive spine (RA, HD)<br>Moderator : Junichi Kunogi<br>P.277~279                          | Afternoon Seminar 8<br>Moderator : Michio Hongo<br>Speaker : Koji Kaneoka, Satoshi Kato<br>P.280         |   |       |       |       |
|       |                        | 50<br>Hands-On Seminar 1<br>※Pre-registration required<br>Moderator : Motoki Iwasaki<br>Speaker : Ken Ishii      | 20   |   |       |       |       |
|       | Poster Display         |  |  | 10<br>Poster Presentation 1   | 10    |       |       |

Welcome Reception  
 19:00~21:00

# The Second Day—April 19(Friday)

| Venue             |   | 7 : 00   | 8 : 00 | 9 : 00   | 10 : 00   | 11 : 00   | 12 : 00   |  |
|-------------------|---|--|--------|--|---|---|---|--|
| Conference Center | Room 1<br>Main Hall<br>(1F)                         |  |        | 40<br><b>Special Lecture 1</b><br>Moderator : Hiroaki Nakamura<br>Speaker : Toshiniko Taguchi<br>P.421   | 40 50<br><b>Expert Technical Note 2</b><br>Expert technique in advanced surgery<br>Moderator : Masashi Neo, Hiroshi Takahashi<br>Speaker : Hideki Murakami, Takachika Shimizu, Kota Watanabe, Munehito Yoshida<br>P.421~423 | 50  | 20  |  |
|                   | Room 2<br>503<br>(5F)                               | 30<br><b>Morning Seminar 1</b><br>Moderator : Eiji Abe<br>Speaker : Takanori Saito<br>P.427          | 30     | 28<br><b>Main Theme 6</b><br>Progress in surgical material for spine and spinal cord diseases<br>Moderator : Motoki Iwasaki<br>P.427~430   | 38<br><b>Main Theme 7</b><br><b>Athletic injury to spine</b><br>Moderator : Toshinori Sakai<br>P.430~433  | 00<br><b>Main Theme 8</b><br>Computer-assisted surgery for spine and spinal cord diseases<br>Moderator : Masato Tanaka<br>P.433~436 | 48  |  |
|                   | ★English Presentation Room<br>Room 3<br>501<br>(5F) |  |        | 40<br><b>Symposium 2</b><br>Translational research in spinal diseases<br>Moderator : Masaya Nakamura, Daisuke Sakai<br>Speaker : Masaya Nakamura, Seiji Okada, Toshiniko Yamashita, Daisuke Sakai, Kazuhiro Chiba, Seiji Ohtori<br>P.446~449 |   |   | English Presentation Session 1<br>Moderator : Shinji Takahashi<br>P.449~452 |  |
|                   | Room 4<br>502<br>(5F)                               |  |        | 40 50<br><b>Invited Lecture 5</b><br>Moderator : Yoshiharu Kawaguchi<br>Speaker : Christopher M. Bono<br>P.461   | 50<br><b>Invited Lecture 6</b><br>Moderator : Hiroshi Taneichi<br>Speaker : Juan S. Uribe<br>P.462  | 00<br><b>Invited Lecture 7</b><br>Moderator : Tokumi Kanemura<br>Speaker : Dong-Jun Kim<br>P.462                                    |   |  |
|                   | Room 5<br>301<br>(3F)                               | 30<br><b>Morning Seminar 2</b><br>Moderator : Yukihiko Nakagawa<br>Speaker : Daisuke Togawa<br>P.465 | 30     | 28<br><b>Free Papers 30</b><br>Adult spinal deformity : assessment<br>Moderator : Satoshi Inami<br>P.465~468   | 38<br><b>Free Papers 31</b><br>Adult spinal deformity : preoperative assessment<br>Moderator : Naobumi Hosogane<br>P.468~471  | 48<br><b>Free Papers 32</b><br>Adult spinal deformity : prediction on complication<br>Moderator : Katsumi Harimaya<br>P.471~474     |   |  |
|                   | Room 6<br>302<br>(3F)                               | <b>Morning Seminar 3</b><br>Moderator : Minoru Doita<br>Speaker : Kota Watanabe<br>P.484             |        | 36<br><b>Free Papers 36</b><br>LIF : anatomy<br>Moderator : Shunsuke Fujibayashi<br>P.484~487  | 37<br><b>Free Papers 37</b><br>LIF : cage<br>Moderator : Yu Yamato<br>P.487~490   | 38<br><b>Free Papers 38</b><br>LIF : miscellaneous<br>Moderator : Hideki Murakami<br>P.490~493                                      |   |  |
|                   | Room 7<br>303<br>(3F)                               | <b>Morning Seminar 4</b><br>Moderator : Toru Hasegawa<br>Speaker : Yoshiharu Kawaguchi<br>P.503      |        | 42<br><b>Free Papers 42</b><br>Cervical OPLL<br>Moderator : Nobuhiro Tanaka<br>P.503~506   | 43<br><b>Free Papers 43</b><br>Cervical anterior fusion<br>Moderator : Hisanori Mihara<br>P.506~509   | 44<br><b>Free Papers 44</b><br>Cervical laminoplasty<br>Moderator : Noboru Hosono<br>P.509~512                                      |   |  |
|                   | Room 8<br>304<br>(3F)                               | <b>Morning Seminar 5</b><br>Moderator : Hiroshi Takahashi<br>Speaker : Koichi Sairyō<br>P.522        |        | 48<br><b>Free Papers 48</b><br>Osteoporosis 3<br>Moderator : Yasumitsu Toribatake<br>P.522~525   | 49<br><b>Free Papers 49</b><br>Osteoporosis 4<br>Moderator : Yasuhisa Arai<br>P.525~528   | 50<br><b>Free Papers 50</b><br>Fracture with attention<br>Moderator : Masato Nakano<br>P.528~531                                    |   |  |
|                   | Room 9<br>311+312<br>(3F)                           | <b>Morning Seminar 6</b><br>Moderator : Tomoaki Toyone<br>Speaker : Takahiro Iida<br>P.541           |        | 54<br><b>Free Papers 54</b><br>Epidemiological survey 1<br>Moderator : Kazunori Yone<br>P.542~544  | 55<br><b>Free Papers 55</b><br>Epidemiological survey 2<br>Moderator : Satoshi Asano<br>P.545~547   | 56<br><b>Free Papers 56</b><br><b>Sarcopenia</b><br>Moderator : Koji Akeda<br>P.548~550   |   |  |
|                   | Room 10<br>315<br>(3F)                              |  |        | 60<br><b>Free Papers 60</b><br>Low back pain in schoolchild<br>Moderator : Masabumi Miyamoto<br>P.560~563  | 61<br><b>Free Papers 61</b><br>Assessment and diagnosis<br>Moderator : Katsuhiko Sato<br>P.563~566  | 62<br><b>Free Papers 62</b><br>Disease and pathomechanism<br>Moderator : Masahiko Kanamori<br>P.566~569                             |   |  |
| Exhibition Hall   | Poster Area<br>Exhibition Hall A                    | 00   |        | Poster Display   |   |   |   |  |

| 13 : 00  | 14 : 00   | 15 : 00   | 16 : 00 | 17 : 00  | 18 : 00               | 19 : 00   |
|--|---|---|---------|--|-----------------------|---|
| <b>Luncheon Seminar 11</b><br>Moderator : Yukihito Matsuyama<br>Speaker : Shigeto Cheta<br>P.423                   | <b>Special Lecture 2</b><br>Moderator : Hirota Haro<br>Speaker : Yutaka Nohara<br>P.424   | <b>Expert Technical Note 3</b> 🌀<br><b>Surgical complication</b><br>Moderator : Masashi Yamazaki, Hiroaki Nakamura<br>Speaker : Masashi Neo, Morio Matsumoto, Takashi Yamazaki, Norio Kawahara<br>P.424~426 |         |  |                       | <b>Supervisory Doctor's Evening Seminar</b><br>Moderator : Hiroaki Konishi<br>Speaker : Hiromichi Komori<br>P.426 |
| <b>Luncheon Seminar 12</b><br>Moderator : Takahiro Ushida<br>Speaker : Muneaki Ishijima, Masako Iseki<br>P.436~437 | <b>Main Theme 9</b> <sup>28</sup><br>Standards for minimally invasive spinal surgery<br>Moderator : Hiroshi Yamada<br>P.437~440 | <b>Main Theme 10</b> <sup>38</sup><br>Therapeutic strategy for osteoporotic vertebral fracture<br>Moderator : Masahiro Kanayama<br>P.440~443  |         | <b>Main Theme 11</b> <sup>58</sup><br>Spinal surgery with instrumentation for osteoporosis<br>Moderator : Gen Inoue<br>P.443~446 |                       |   |
| <b>Luncheon Seminar 13</b><br>Moderator : Masahiko Watanabe<br>Speaker : Sumihisa Orita<br>P.452                   | <b>English Presentation Session 2</b><br>Moderator : Naobumi Hosogane<br>P.453~455  | <b>English Presentation Session 3</b> <sup>30</sup><br>Moderator : Akihito Minamide<br>P.456~458  |         | <b>English Presentation Session 4</b><br>Moderator : Shiro Imagama<br>P.458~461  |                       |   |
| <b>Luncheon Seminar 14</b><br>Moderator : Hiroaki Konishi<br>Speaker : Gen Inoue<br>P.463                          | <b>Invited Lecture 8</b> <sup>40</sup><br>Moderator : Ken Ishii<br>Speaker : Mun Keong Kwan<br>P.463                            | <b>Invited Lecture 9</b> <sup>50</sup><br>Moderator : Masaya Nakamura<br>Speaker : Jeffrey C. Wang<br>P.464   |         | <b>Invited Lecture 10</b> <sup>10</sup><br>Moderator : Daisuke Sakai<br>Speaker : Shanmuganathan Rajasekaran<br>P.464            |                       |   |
| <b>Luncheon Seminar 15</b><br>Moderator : Mamoru Kawakami<br>Speaker : Osamu Shirato<br>P.474                      | <b>Free Papers 33</b> <sup>28</sup><br>Adult spinal deformity : Alignment<br>Moderator : Kei Watanabe<br>P.475~477              | <b>Free Papers 34</b> <sup>38</sup><br>Pelvic alignment<br>Moderator : Tomoaki Toyone<br>P.478~480  |         | <b>Free Papers 35</b> <sup>58</sup><br>Pelvic anchor<br>Moderator : Tomohiko Hasegawa<br>P.481~483                               |                       |   |
| <b>Luncheon Seminar 16</b><br>Moderator : Yasuki Tsubouchi<br>Yoshiyasu Arai, Takahiro Makino<br>P.493~494         | <b>Free Papers 39 PLIF</b><br>Moderator : Shinya Okuda<br>P.494~497   | <b>Free Papers 40 Cage</b><br>Moderator : Yoshiyasu Arai<br>P.497~500   |         | <b>Free Papers 41</b> <sup>50</sup><br>Intraforaminal stenosis<br>Moderator : Yoichi Aota<br>P.500~502                           |                       |   |
| <b>Luncheon Seminar 17</b><br>Moderator : Masashi Neo<br>Speaker : Hidenori Suzuki<br>P.512                        | <b>Free Papers 45</b><br>Cervical spine alignment<br>Moderator : Atsushi Seichi<br>P.513~515                                    | <b>Free Papers 46</b><br>Cervical posterior surgery with instrumentation<br>Moderator : Takeo Furuya<br>P.516~518   |         | <b>Free Papers 47</b> <sup>58</sup><br>Cervical spine : surgical complication<br>Moderator : Atsushi Kimura<br>P.519~521         |                       |   |
| <b>Luncheon Seminar 18</b><br>Moderator : Koji Sato<br>Speaker : Hisanori Ikuma, Junichi Ukai<br>P.531~532         | <b>Free Papers 51</b><br>Surgical complication 1<br>Moderator : Kazuo Saita<br>P.532~535  | <b>Free Papers 52</b><br>Surgical complication 2<br>Moderator : Toru Maruyama<br>P.535~538  |         | <b>Free Papers 53</b><br>Surgical complication 3<br>Moderator : Tsuneo Takebayashi<br>P.538~541                                  |                       |   |
| <b>Luncheon Seminar 19</b><br>Moderator : Toshihiko Yamashita<br>Speaker : Osamu Homma<br>P.551                    | <b>Free Papers 57</b><br>Locomotive syndrome<br>Moderator : Shoji Yabuki<br>P.551~554   | <b>Free Papers 58</b><br>Thoracolumbar injury<br>Moderator : Kota Suda<br>P.554~557   |         | <b>Free Papers 59</b><br>Spinal cord tumor<br>Moderator : Toshihiro Takami<br>P.557~560  |                       |   |
| <b>Luncheon Seminar 20</b><br>Moderator : Masashi Takaso,<br>Shiro Imagama<br>P.569~570                            |   | <b>Hands-On Seminar 2</b> <sup>20</sup><br>※Pre-registration required<br>Moderator : Masao Koda<br>Speaker : Toshitaka Yoshii<br>Surgical Instructor : Hisanori Mihara, Kenichiro Sakai                     |         |  |                       |   |
| Poster Display   |   |   |         |  | Poster Presentation 2 |   |

# The Third Day-April 20 (Saturday)

👤 : Interpretation Available (Japanese to English)

| Venue             |   | 7 : 00         | 8 : 00  | 9 : 00 | 10 : 00  | 11 : 00   | 12 : 00  |                       |
|-------------------|---|----------------|---|--------|--|---|--|-----------------------|
| Conference Center | Room 1<br>Main Hall<br>(1F)                         |                |   |        |  | <b>Expert Technical Note 4</b> 👤<br><b>Anterior surgery</b><br>Moderator : Yoichi Shimada, Atsushi Okawa<br>Speaker : Shigeo Shindo, Manabu Ito, Sumihisa Orita, Tokumi Kanemura<br>P.693~694 |  | 15<br>Closing Remarks |
|                   | Room 2<br>503<br>(5F)                               |                |   |        | 00 Main Theme 12 48<br>Liaison therapeutic strategy for metastatic spinal disorders<br>Moderator : Kazuo Nakanishi<br>P.695~697      | Main Theme 13 48<br>Spinal surgery with instrumentation at cervical lesion<br>Moderator : Yasutsugu Yukawa<br>P.698~700   | 00 Main Theme 14 48<br>Spinal disorders associated with sarcopenia<br>Moderator : Koji Otani<br>P.701~703  |                       |
|                   | ★English Presentation Room<br>Room 3<br>501<br>(5F) |                |   |        | English Presentation Session 5<br>Moderator : Takashi Tsuji<br>P.704~706   | English Presentation Session 6<br>Moderator : Kanji Mori<br>P.707~709   | English Presentation Session 7<br>Moderator : Toshinori Sakai<br>P.710~712                                 |                       |
|                   | Room 4<br>502<br>(5F)                               |                |   |        | Invited Lecture 11<br>Moderator : Manabu Ito<br>Speaker : Gabriel Liu<br>P.713   | Invited Lecture 12<br>Moderator : Hideki Nagashima<br>Speaker : Hiroyuki Kojin, Giichiro Oiso<br>P.713~714  | Invited Lecture 13<br>Moderator : Hiroshi Ozawa<br>Speaker : Chi-Chien Niu<br>P.714                        | 00                    |
|                   | Room 5<br>301<br>(3F)                               | 50             | Morning Seminar 7<br>Moderator : Hiroshi Ozawa<br>Speaker : Ko Matsudaira<br>P.715                        | 50     | Free Papers 63 48<br>Adult spinal deformity : surgery<br>Moderator : Akira Matsumura<br>P.715~718                                    | Free Papers 64 48<br>Adult spinal deformity : LIF<br>Moderator : Akihito Minamide<br>P.718~721  | Free Papers 65 48<br>Adult spinal deformity : complication<br>Moderator : Mitsunori Yoshimoto<br>P.721~724 |                       |
|                   | Room 6<br>302<br>(3F)                               |                | Morning Seminar 8<br>Moderator : Seiji Ohtori<br>Speaker : Yasushi Oshima, Kunihiro Yamagata<br>P.724~725 |        | Free Papers 66<br>Lumbar spine : decompression<br>Moderator : Takenori Oda<br>P.725~728  | Free Papers 67<br>Pyogenic spondylitis<br>Moderator : Kimiaki Sato<br>P.728~731   | Free Papers 68<br>Infectious spondylitis<br>Moderator : Tsukasa Kanchiku<br>P.731~734                      |                       |
|                   | Room 7<br>303<br>(3F)                               |                |   |        |  |   |  |                       |
|                   | Room 8<br>304<br>(3F)                               |                |   |        |  |   |  |                       |
|                   | Room 9<br>311+312<br>(3F)                           |                |   |        | Free Papers 69<br>Spinal injury<br>Moderator : Yasuo Ito<br>P.734~737  | Free Papers 70<br>Cervical spine trauma<br>Moderator : Takeshi Maeda<br>P.737~740   | Free Papers 71<br>Dropped head syndrome<br>Moderator : Hiroshi Miyamoto<br>P.740~743                       |                       |
|                   | Room 10<br>315<br>(3F)                              |                |   |        | Hands-On Seminar 3 30<br>Product Lecture<br>※Pre-registration required<br>Moderator : Kazuhiro Chiba<br>Speaker : Yukihiko Matsuyama |   |  |                       |
| Exhibition Hall   | Poster Area<br>Exhibition Hall A                    | Poster Display |   |        |  |   | 00<br>Poster Removal   |                       |