

## **APSS-GANGA HOSPITAL FELLOWSHIP 2018**

### **Fellow :**

Dr. Sanjoy Biswas , M.S.( Orthopaedics), Associate consultant ,Spine Surgery,  
Apollo Gleneagles Hospital , Kolkata, India

### **Host :**

Dr. Professor S Rajasekaran.  
M.S., DNB, F.R.C.S.[Ed],M.Ch[Liv.] ,F.R.C.S. [Eng],PhD  
Chairman , Department of Orthopaedics and Spine Surgery  
Ganga Hospital, Coimbatore, India

**Attachment period** : 4th June to 25th June,2018. (3 Weeks)

### **Introduction:**

First of all I would like to thank the Asia Pacific Spine Society (APSS) and Ganga Hospital for selecting me to go on this prestigious fellowship to Ganga Hospital, Coimbatore, India from 4th June, 2018 to 25th June, 2018. My fellowship schedule and all the previous formalities were very nicely arranged by APSS/GANGA. Special thanks to the co-ordinator Jenne, APSS, & GANGA Hospital for arranging such a hassle free fellowship .This is a great opportunity to interact and observe in a spine centre with lot of cases. Also being in the early stage of my carrier as a spine surgeon it presented to me a very good chance to know newer avenues and learn from the masters from the field of spine. Getting an opportunity to work and learn different ideas and techniques at one the most reputed institution in Asia Pacific Region was once in a lifetime opportunity for me.

### **Fellowship program:**

The APSS arranged the airline tickets and The Ganga Hospital arranged my accommodation and airport transfers. I arrived in Coimbatore on 3rd of June and joined the activity on 4th of June, 2018. From airport I was received by Dr. Dilip Chand Raja Soundarajan and stayed at Ganga Hospital Guest house, sharing with another APSS fellow from 3rd June to 25th June which was 3 KM away from the hospital. The guest house was good, a lot of restaurants and a mini market around the guest house. On 4th July Dr. Dilip again picked us up from the guest house and rest of the days I travelled to the hospital by bus.

On 4th June Dr. Dilip took us to the operation theatre and we met Prof. S Rajasekaran,who was very humble and welcomed us and introduced the schedule to us and took us to the operation room and also offered us breakfast. During our stay, apart from two APSS fellows, other three spine fellows was there from Japan, England and Tanzania. Every day we took our breakfast and lunch from hospital canteen.

To add to the excitement I also had a chance to attend the Ganga Spine Microsurgery Course from 13th June to 16th June 2018, & GANGA Hospital Trauma Course from 22 rd June to 24 th June 2018.

The following schedule will be followed for each day of the week.

| Days             | Provisional Schedule   |
|------------------|--|
| <b>MONDAY</b>    | <ul style="list-style-type: none"> <li>• 7.15 am – Pick up from Hotel</li> <li>• 7.30 am to 5.00 pm – Operation Theatre</li> </ul>   |
| <b>TUESDAY</b>   | <ul style="list-style-type: none"> <li>• 7.15 am – Pick up from Hotel</li> <li>• 7.15 am to 9.00 am – Clinical Meeting</li> <li>• 9.00 am to 2.30 pm – Outpatient Clinic</li> <li>• 2.30 pm to 5.00 pm - Ganga Spine Injury Rehabilitation Centre</li> </ul>       |
| <b>WEDNESDAY</b> | <ul style="list-style-type: none"> <li>• 7.15 am – Pick up from Hotel</li> <li>• 7.15 am to 5.00 am – Operation Theatre</li> </ul>   |
| <b>THURSDAY</b>  | <ul style="list-style-type: none"> <li>• 7.15 am – Pick up from Hotel</li> <li>• 7.15 am to 5.00 pm – Operation Theatre/ Outpatient clinic</li> <li>• 6.00 pm – Grand Rounds</li> </ul>  |
| <b>FRIDAY</b>    | <ul style="list-style-type: none"> <li>• 7.15 am – Pick up from Hotel</li> <li>• 7:30 am to 5.00 pm– Operation Theatre</li> </ul>  |
| <b>SATURDAY</b>  | <ul style="list-style-type: none"> <li>• 7:00 am – Pick up from Hotel</li> <li>• 7:15 am to 9.00 am - Clinical meeting (Paper presentations from the Visiting APSS Fellows)</li> <li>• 9.00 am to 3.00 pm – Operation Theatre/ Spine Micro surgical lab</li> </ul> |

All the pre-operative and post-operative patients were discussed. It was interesting to discuss the various cases and the pre-operative planning done. The entire faculty gave their opinions and critical reviews on each case. I got a chance to scrub in and assist the case. Professor Rajasekheran performed operations very nicely and also explained us all the tricks and tips regarding the exposure and instrumentation and we learnt navigation surgery from him, this was the first time I was exposed to this technique having previously only seen it in conference workshops. The case load in GANGA is uncountable and I also thank full to Dr. Ajoy Prasad Shetty and Dr.Rishi Mugesh Kanna, who taught us the all aspects of spine surgery . We also attended the morning meeting and case discussion and grand rounds. All modern spine equipments are available in this centre of excellence and we were very lucky to work with Prof. It was once in a lifetime experience.

Over the weekend I had a chance to visit the local tourist attraction along with some of the fellows there in Ooty and ISHA meditation centre .

On 14 th June Prof. took all of us to his residence for dinner and we got to interact with his family; it was a great experience and we were also dropped to our guest house by him .

Overall it has been a very fruitful experience that has helped learn many new things and ideas along with getting a chance to interact directly in person with some of the best in the field of spine surgery. Thanks again to APSS & GANGA Hospital for making this possible and also for such a great organized fellowship program.

## Fellowship log book:

| SERIAL | CASE                               | OOERATION   | DAY  |
|--------|------------------------------------|---|------|
| 1.     | L5-S1 PIVD                         | L5-S1 MICRO DISCECTOMY                              | DAY1 |
| 2.     | L5-S1 III LYTIC LISTHESIS          | L5-S1 TLIF- <b>NEVIGATION SURGERY</b>               | DAY1 |
| 3.     | L5-S1 PIVD                         | L4-L5 DISCECTOMY                                    | DAY1 |
| 4.     | T11 COMPRESSION #                  | T11 VERTEBROPLASTY                                  | DAY1 |
| 5.     | L5-S1 LISTHESIS                    | L5-LS1 TLIF   | DAY1 |
| 6.     | L4-S1 CANAL SRENOSIS               | L4-S1 DECOMPRESION                                  | DAY1 |
| 7.     | L5-S1 PIVD                         | L5-S1 MICRODISCTOMY                                 | DAY1 |
| 8.     | INFETION IN OPERATED L4L-L5 PIVD   | L4-L5 DEBRIDEMENT AND VAC APPLICATION               | DAY1 |
| 9.     | SCOLIOSIS                          | GROWTH ROD DISTRACTION                              | DAY1 |
| 10.    | L4-L5 PIVD                         | L4-L5 MICRODISCECTOMY                               | DAY2 |
| 11.    | L5-S1 PIVD                         | L5-S1 DECOMPRESION                                  | DAY2 |
| 12.    | T10 COMPRESSION #                  | T10 VERTEBROPLASTY                                  | DAY2 |
| 13.    | L4-L5 PIVD                         | L4-L5 DECOMPRESION                                  | DAY2 |
| 14.    | C6-C7 PIVD                         | C6-C7 ACDF  | DAY2 |
| 15.    | D12 TRAUMATIC BURST # [ASIA-A]     | D10-L2 FIXATION WITH DECOMPRESION                   | DAY2 |
| 16.    | L4-L5 GRADE II LISTHESIS           | L4-L5 TLIF  | DAY3 |
| 17.    | L4-L5 LISTHESIS                    | L4-L5 FUSION  | DAY3 |
| 18.    | C6-C7 PIVD                         | C6-C7 ACDF  | DAY3 |
| 19.    | CONGENITAL D/L KYPHOSCOLIOSIS      | SCOLIOSIS CORRECTION - <b>NEVAGATION SURGERY</b>    | DAY3 |
| 20.    | RT ILIUM CONDROSARCOMA             | EXCISION OF TUMOUR- <b>NAVIGATION SURGERY</b>       | DAY3 |
| 21.    | C6-T1 LYTIC LESION                 | C6-T1 ANTERIOR RECONSTRCTION AND FUSION WITH BIOPSY | DAY3 |
| 22.    | L2-L5 STENOSIS                     | L3-L4, L4-L5 TLIF AND L2-L5 FUSION                  | DAY3 |
| 23.    | L2-L4 STENOSIS                     | L2-L4 FUSION  | DAY3 |
| 24.    | SCOLIOSIS                          | GROWTH ROD DISTRACTION                              | DAY3 |
| 25.    | L5-S1 PIVD                         | L5-S1 MICROSUEGERY                                  | DAY3 |
| 26.    | L4-L5 INFECTED OPERATED OUT SIDE   | L4-L5 DEBRIDEMENT                                   | DAY3 |
| 27.    | L4 LYTIC LESION                    | L4 TRANSPEDICULAER BIOPSY                           | DAY4 |
| 28.    | C6-C7 PIVD                         | C6-C7 ACDF  | DAY4 |
| 29.    | L5-S1 LISTHESIS                    | L5-S1 TLIF  | DAY4 |
| 30.    | L4-S1 CANAL STENOSIS               | L4-S1 FUSION  | DAY4 |
| 31.    | L4-L5 LISTHESIS                    | L4-L5 DECOMPRESION AND FUSION                       | DAY4 |
| 32.    | T3 COMPRESION FRACTURE             | T3 STABILIZATION AND DECOMPRESION AND BIOPSY        | DAY4 |
| 33.    | L4-L5 PIVD                         | L4-L5 MICCRO DISCECTOMY                             | DAY4 |
| 34.    | L4-L5 PIVD                         | L4-L5 MICCRO DISCECTOMY                             | DAY4 |
| 35.    | CONGENITAL LEFT THORASIC SCOLIOSIS | SCOLIOSIS CORRECTION – <b>NAVIGATION SURGERY</b>    | DAY4 |
| 36.    | L4-L5 PIVD                         | L4-L5 DECOMPRESION                                  | DAY5 |
| 37.    | CONGENITAL LEFT THORASIC           | SCOLIOSIS CORRECTION- T2-L3                         | DAY5 |

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|     | SCOLIOSIS WITH NEURODEFICIT                                 | <b>NEVIGATION SURGERY</b>                                 |        |
| 38. | C5-C6 PIVD  | C5-C6 ACDF  | DAY5   |
| 39. | L4-L5 LYTIC LISTHESIS                                       | L4-L5 FUSION  | DAY5   |
| 40. | L4-L5 LISTHESIS   | L4-L5 FUSION  | DAY5   |
| 41. | L4-S1 STENOSIS  | L4-S1 DECOMPRESION  | DAY5   |
| 42. | L4-L4 PIVD  | L4-L5 MICRODISCETOMY                                      | DAY5   |
| 43. | LOW BACK PAIN   | SPINAL STEROID INJECTION                                  | DAY5   |
| 44. | T7 AND D12 COMPRESION FRACTURE                              | T6-T8 THORACIC POST .FIXATION AND ,D12 VERTEBROPLASTY     | DAY8   |
| 45. | TYPE1 NEUROFIBROMATOSIS WITH C-T KYPHO-SCOLIOSIS            | SCOLIOSIS CORRECTION WITH OSTEOTOMY AND SUBLAMINAR WIRING | DAY8   |
| 46. | L3-L5 STENOSIS  | L3-L5 FUSION  | DAY8   |
| 47. | L5-S1 LISTHESIS   | L5-S1 FUSION  | DAY8   |
| 48. | L3 LESION AND L4-L5 LISTHESIS                               | L3 BIOPSY AND L4-L5 FUSION                                | DAY8   |
| 49. | L4-L5 LYTIC LISTHESIS                                       | L4-L5 TLIF  | DAY8   |
| 50. | FACET ARTHOPATHY  | LUMBER STEROID INJECTION                                  | DAY8   |
| 51. | L5 RADICULOPATHY[LT]  | LEFT L5 SNRB  | DAY8   |
| 52. | L4-L5 LISTHESIS   | L4-L5 FUSION ,TLIF  | DAY9   |
| 53. | L2-L3 PIVD  | L2-L3 DECOMPRESION  | DAY9   |
| 54. | L3-L5 STENOSIS  | L3-L5 DECOMPRESION  | DAY9   |
| 55. | L4 LYTIC LESION   | L4 TRANSPEDICULAR BIOPSY                                  | DAY9   |
| 56. | CONGENITAL DORSAL KYPHOSCOLIOSISWITH COMPRESSIVE MYELOPATHY | SCOLIOSIS CORRECTION –<br><b>NEVIGATION SURGERY</b>       | DAY10  |
| 57. | L3-L4 STENOSIS  | L3-L4 FUSION  | DAY 10 |
| 58. | C3-C5 OPLL  | C3-C5 CERVICAL LAMINECTOMY                                | DAY10  |
| 59. | L4-L5 LISTHESIS   | L4-L5 TLIF  | DAY 10 |
| 60. | L5-S1 PIVD  | L5-S1 MICRODISCETOMY                                      | DAY10  |
| 61. | L4-L5 PIVD  | L4-L5 MICRODISCTOMY                                       | DAY 10 |
| 62. | C6-C7 PIVD  | C6-C7 ACDF  | DAY10  |
| 63. | L3-L4 PIVD  | L3-L4 MICRODISCETOMY                                      | DAY 10 |
| 64. | L5-S1 PIVD  | L5-S1 DECOMPRESION  | DAY10  |
| 65. | L4-L5 SISTHESIS   | L4-L5 TLIF  | DAY 10 |
| 66. | CONGENITAL RT THORASIC SCOLIOSIS                            | GROWTH ROD DISTRACTION                                    | DAY11  |
| 67. | L4-L5,L5-S1 STENOSIS  | L4-S1 DECOMPRESION  | DAY11  |
| 68. | L5-S1 LISTHESIS   | L5-S1 DECOMPRESION AND FUSION                             | DAY11  |
| 69. | ADOLOSCENT IDIOPATHIC                                       | SCOLIOSIS CORRECTION-<br><b>NEVIGATION SURGERY</b>        | DAY11  |
| 70. | L4-L5 CAUDA EQUINA SYMPTOM                                  | CAUDA EQUINA DECOMPRESION                                 | DAY11  |
| 71. | LUMBO SACRAL DERMAL SINUS                                   | SINUS EXCISION  | DAY11  |
| 72. | C3-C7 OPLL  | C3-C7 LAMINECTOMY AND POST .STABILIZATION                 | DAY12  |
| 73. | C3-C4,C4-C5 PIVD  | C3-4,C4-5 ACDF  | DAY12  |
| 74. | L4-L5 PIVD  | L4-L5 MICRODISCECTOMY                                     | DAY12  |
| 75. | L5-S1 LISTHESIS   | L5-S1 TLIF  | DAY12  |
| 76. | IDIOPATHIC THORASCIC SCOLIOIS                               | SCOLIOSIS CORRECTION-<br><b>NAVIGATION SURGERY</b>        | DAY12  |

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| 77.  | L2-S1 STENOSIS                      | L2- S1 DECOMPRESION AND FUSION   | DAY12 |
| 78.  | L1 BURST FRACTURE WITH ASIA -A      | L1 BURST FRATURE STABILIZATION   | DAY12 |
| 79.  | L5 LYTIC LESION                     | L5 BIOPSY  | DAY12 |
| 80.  | L4-L5 PIVD                          | L4-L5 MICRO DISCECTOMY   | DAY13 |
| 81.  | L4-L5 LISTHESIS                     | L4-L5 TLIF   | DAY13 |
| 82.  | L3-L5 STENOSIS                      | L3-L5 DECOMPRESION   | DAY13 |
| 83.  | L5-S1 LISTHESIS                     | L5-S1 TLIF   | DAY13 |
| 84.  | L3-L5 STENOSIS                      | L3-L5 DECOMPRESION AND L4-L5 TLIF  | DAY13 |
| 85.  | L4-L5 LISTHESIS                     | L4-L5 TLIF   | DAY13 |
| 86.  | L4-L5 PIVD                          | L4-L5 DECOMPRESION   | DAY13 |
| 87.  | L5-S1 LISTHESIS                     | L5-S1 TLIF   | DAY13 |
| 88.  | L4-L5 PIVD                          | L4-L5 MICRODISCECTOMY  | DAY13 |
| 89.  | L4-S1 STENOSIS                      | L4-S1 MICRODISCECTOMY  | DAY13 |
| 90.  | L4-L5 STENOSIS                      | L4-L5 DECOMPRESION AND FUSION  | DAY15 |
| 91.  | ADOLASCENT IDOPATHIC SCOLIOSIS      | T3-L3 LEVEL SCOLIOSIS CORRECTION-NEVIGATION SURGERY                      | DAY15 |
| 92.  | C3-C6 OPLL                          | C3-C6 LAMINECTOMY  | DAY15 |
| 93.  | L5-S1 LISTHESIS                     | L5-S1 DECOMPRESION AND FIXATION  | DAY15 |
| 94.  | L2-L3 SECONDARY ADVANCE LCS         | L2-L3 POST FIXATION  | DAY15 |
| 95.  | L4-S1 STENOSIS                      | L4-S1 DECOMPRESION   | DAY16 |
| 96.  | CONGENITAL SCOLIOSIS                | HALO RING APPLICATION  | DAY16 |
| 97.  | L4-L5 STENOSIS                      | L4-L5 FUSION   | DAY16 |
| 98.  | L4-L5 PIVD                          | L4-L5 DECOMPRESION   | DAY16 |
| 99.  | L5 RADICULOPATHHY                   | L5 SNRB  | DAY16 |
| 100. | L4-L5 PIVD                          | MICRODISCECTOMY  | DAY17 |
| 101. | L4-L5 DEGENERATIVE LISTHESIS        | L4-L5 TLIF   | DAY17 |
| 102. | L4-L5,L5-S1 LISTHESIS               | L4-L5,L5-S1 TLIF   | DAY17 |
| 103. | ODONTOIND # WITH IMPLANT            | IMPLANT REMOVAL  | DAY17 |
| 104. | L3-L5 STENOSIS WITH INSTABILITY     |  | DAY17 |
| 105. | SACRAL CHONDROMA WITH NEURO DEFICIT | ANTERIOR + POST EXCISION,BIOPSY,SPINO-PELVIC FIXATION-NEVIGATION SURGERY | DAY17 |
| 106. | T12 COMPRESSION #                   | T12 VERTEBROPLASTY   | DAY17 |
| 107. | L2-S1 CANAL STENOSIS                | L2-S1 FIXATION ANS L4-L5,L5-S1 TLIF                                      | DAY17 |
| 108. | L4-L5 PIVD                          | MICRODISCECTOMY  | DAY17 |
| 109. | C3-C6 OPLL                          | C3-C6 LATERAL MASS FIXATIN AND LAMINECTOMY                               | DAY17 |
| 110. | L4-L5 PIVD                          | L4-L5 MICRODISCECTOMY  | DAY17 |
| 111. | DEGENERATIVE LUMBER SCOLIOSIS       | L3-S1 DECOMPRESION AND FUSION  | DAY18 |
| 112. | L4-S1 STENOSIS                      | L4-S1 DECOMPRESION   | DAY18 |
| 113. | L5 COLLAPSE WITH L5-S1 DISCITIS     | BIOPSY,FUSION,DECOMPRESION   | DAY18 |
| 114. | L1 FEACTURE WITH PSEUDOARTHOSIS     | POSTERIOR STABILIZATION AND DECOMPRESION                                 | DAY18 |
| 115. | L2 IDEM                             | TUMOUR EXCISION  | DAY18 |

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|-----|--|---|-------------|
| 116 | AIS RT THORASIC SCOLIOSIS                | T4-L4 DEFORMITY CORRECTION<br>-NEVIGATION SURGERY | DAY18       |
| 117 | T9-T10 SPONDYLODISCITIS                  | POSTERIOR FIXATION AND<br>DECOMPRESION            | DAY18       |
| 118 | T1 LYTIC LESION WITH<br>MYELOPATHY       | TUMOUR EXCISION AND<br>POSTERIOR FIXATION         | DAY18       |
| 119 | NEUROMUSCULAR LUMBER<br>HYPERLORDOSIS    | T4- ILIUM FIXATION WITH<br>DEFORMITY CORRECTION   | DAY18       |
| 120 | <b>GANGA OPERATIVE TRAUMA<br/>COURSE</b> | <b>MULTIPLE NUMBER TRAUMA LIVE<br/>SURGERY</b>    | DAY19,20,21 |



Pic-1: With Prof. S. Rajasekaran



Pic 2: GANGA Hospital guest house



Pic 3: Dinner at Prof. residence



Pic 4: Spine Navigation surgery



Pic 5: With other APSS fellow and Prof .S Rajasekaran & GANGA HOSPITAL

## Summery

This 3-week clinical fellowship was well organized and had all the necessary elements, and it has been a wonderful experience. I thoroughly value the opportunity provided by APSS and GANGA HOSPITAL in this endeavour.