**Labor cost and space cost**

Animal technician at KMW

Animal technician cost: 189sek/30min (07:00am -16:00pm)

Animal technician cost: 284sek/30min (after 16:00 weekdays) + 50% working time

Animal technician cost: 378sek/30min (weekend, nights, after 22:00) + 100% working time

Cage cost virus lab cage per unit/day: 15,29sek (excl. INDI)

Cage cost normal cage room 229 per unit/day: 09,19sek (excl. INDI)

Infinigene

Labor cost: 189sek/30min (07:00am -19:00pm, flexible 8 working hours)

Labor cost: 284sek/30min (before 07:00am and 19:00- 22:00 weekdays) + 50% working time

Labor cost: 378sek/30min (weekend, nights, after 22:00) + 100% working time

Office rent in Biomedicum: 63,446 sek/year

**Labor cost for common services**

|  |  |  |
| --- | --- | --- |
| **Labor cost for common services** | **Cost per 30min (SEK)** | **Infinigene incl. INDI****Cost per 30min (SEK)**  |
| Internal  | 189 | 236 |
| Internal with 50% extra working time | 284 | 355 |
| Internal with 100% extra working time | 378 | 472 |
| External | 378 | 472 |
| External with 50% extra working time | 568 | 710 |
| External with 100% extra working time | 756 | 945 |

**Labor cost for injection**

|  |  |
| --- | --- |
| **Labor cost for injection** | **Cost per 30min (SEK)/incl. INDI** |
| Animal technician (Prepare bench, load needle, ultrasound injection, recovery, write protocol, fill in journals, correspondence.) | 189 |
| 5% back up technician | 10 |
| CF chief |  50 |
| Sum: | 249/311 |

**Consumables list**

|  |  |  |
| --- | --- | --- |
| **Item** | **Usage** | **Price/unit** |
| Ultrasound gel | Ultrasound check | 446kr/5L |
| Hair remover | Ultrasound check | 74kr/200ml |
| Cotton tips | Ultrasound check + injection | 25kr/100st |
| Isoflurane\* | Ultrasound check + injection | 1000kr/250ml |
| Parafilm | Injection | 500kr/roll |
| Tips pipette | Injection | 221kr/case |
| Eye gel | Injection | 59kr/5g |
| Buprenophine | Injection | 3700kr/5ml |
| Syringes+needles | Injection | 1276kr+300/100st |
| Sterilization tissue | Injection | 28kr/150st |
| Skin disinfection/Klorhexidin | Injection | 29kr/250ml |
| Petri dishes | Collection | 1340kr/500st |
| PBS | Injection + collection | 144kr/500ml |
| Glass capillary | Injection | 250kr/100st |
| Pipettes 25ml | Injection | 1570kr/200st |
| Sutures | Injection | 90kr/pack |
| Staples/clips | Injection | 8.5kr/st |
| Formalin | Collection | 991kr/500ml |
| Falcon tubes 1.5ml/2ml/25ml/50ml | Collection | 1.5ml: 492kr/1000st2ml: 537kr/500st15ml: 2030/500st50ml: 654kr/100st |

\*The approximate hourly consumption of anesthetic agents can be expressed as follows: 3 x % x F Where % represents the setting of the vaporizer output percentage, F represents the input flow rate in liter/min. In our case, 3x2.5x2=15ml/hour, one bottle 250ml can be used for around 16.7 hours theoretically.

**Cost for ultrasound checking/mouse (activity time:10min)**

|  |  |  |
| --- | --- | --- |
| **Item** | **Price/unit** | **Cost (SEK)/mouse** |
| Ultrasound gel | 446kr/5L |  |
| Hair remover | 74kr/200ml |  |
| Cotton tips | 25kr/100st | 0,25 |
| Isoflurane | 1000kr/250ml | 12 |
| **Sum/incl. INDI** |  | 12,25+0,75 (uncalculatable items) = 13/16 |

**Cost for ultrasound-guided nano-injection/mouse (activity time: 30min)**

|  |  |  |
| --- | --- | --- |
| **Item** | **Price/unit** | **Cost (SEK)/mouse** |
| Cotton tips | 25kr/100st | 0,25 |
| Isoflurane | 1000kr/250ml | 35 |
| Parafilm | 500kr/roll |  |
| Tips pipette | 221kr/case | 5 |
| Eye gel | 59kr/5g |  |
| Buprenophine | 3700kr/5ml | 7,5 |
| Syringes+needles | 1276kr+300/100st | 1,6 |
| Sterilization tissue | 28kr/150st | 0,05 |
| Skin disinfection/Klorhexidin | 29kr/250ml | 0,2 |
| PBS | 144kr/500ml | 72 |
| Glass capillary | 250kr/100st | 2,5 |
| Pipettes 25ml | 1570kr/200st | 8 |
| Sutures | 90kr/pack | 45 |
| Staples/clips | 8.5kr/st | 17 |
| **Sum/incl. INDI** |  | 194,1+0,9 (uncalcuatable items)=195/244 |

**Cost for collection/mouse**

|  |  |  |
| --- | --- | --- |
| **Item** | **Price/unit** | **Cost (SEK)/mouse** |
| Petri dishes | 1340kr/500st | 5,4 |
| PBS | 144kr/500ml | 144 |
| Formalin | 991kr/500ml | 20 |
| Falcon tubes 1.5ml/2ml/25ml/50ml | 1.5ml: 492kr/1000st2ml: 537kr/500st15ml: 2030/500st50ml: 654kr/100st | 1.5ml: 52ml: 1015ml: 850ml: 13 |
| **Sum/incl. INDI** |  | ͌180/225 |

**Equipments list**

|  |  |  |
| --- | --- | --- |
| **Item** | **Usage** | **Item cost (SEK)** |
| Surgical tools: Clip Applier | Injection | 2,950 |
| Surgical Tools: forceps (4) | Injection + collection | 742 |
| Surgical tools: scissors | Injection + collection | 269 |
| Dosage pump for ultrasound gel | Ultrasound checking | 198 |
| Instrument Tray for storage | Injection + collection | 750 |
| Tip Protectors | Injection + collection | 155 |
| Anaesthesia (air pump + syringe + tubing) | Ultrasound checking + collection | 44,500 |
| Ultrasound Equipment | Ultrasound checking + injection | 860,000 |
| Anasthetic Equipment | Ultrasound checking + injection | 63,600 |
| Imaging station with injection mount | (Ultrasound checking) + injection | 187,017 |
| VEVO labworksation software | Ultrasound checking + injection | 28,602 |
| Comupter screen | Ultrasound checking + injection | 2,500 |
| Heating pad | Ultrasound checking + injection | 10,750 |
| Heating plate for operated animals | Injection | 13,500 |
| Nanoinjector with foot switch | Injection | 25,000 |
| Nanoinjecter-wire plunger  | Injection | 160 |
| Grinder | Injection | 55,000 |
| Sterilizer | Injection | 6100 |
| Centrifuger | Injection | 11,150 |
| Petri dish with parafilm membrance | Injection | 230x4 |
| iPad | Common use | 3990 |
| Pipetboy | Injection | 5553 |
| Pipetman | Injection | 2595x4=10380 |
| Needle puller | Using from other group and sharing maintenance cost |  |
| **Sum** |  | **1,333,786** |

\*It is available with the equipment: Electroporator (cost: 95,000sek), which is used for DNA/RNA injection. It is not common used, so it is not counted in. But if there is demand for the electroporator, please contact Infinigene@km.ki.se.

**Equipments depreciation expense**

|  |  |  |  |
| --- | --- | --- | --- |
| **Depreciation\*** | **Cost for Ultrasound machine (SEK)** **per year/per 30min** | **Cost for Ultrasound-injection setting up (SEK)** **per year/per 30min** | **Cost for both Ultrasound-injection setting up and other equipments** **per year/per 30min (SEK)** |
| 5 year useful life  | 400,000/100 | 602,030/150 | 666,757/167 |

\*Equipment depreciation expense= (Asset cost – Salvage value)/useful life

**Equipments depreciation expense for Ultrasound checking and injection**

|  |  |
| --- | --- |
| **Cost for Ultrasound checking** **per 30min (SEK)/ incl. INDI** | **Cost for both Ultrasound-injection** **per 30min (SEK)/ incl. INDI** |
| 150/187 | 167/209 |

**Cost for each procedure**

|  |  |
| --- | --- |
| Setting plug + plug checking | Labor cost  |
| Ultrasound checking (active time: 10min/mouse) | Labor cost + consumable cost for ultrasound checking+ Equipment depreciation expense (ultrasound checking) |
| Ultrasound-guide nano-injection\*(30min/mouse) | Labor cost for injection + consumable cost for ultrasound-guided nano-injection + Equipment depreciation expense for injection |
| Collection (pups/embryos) | Consumable cost for collection(+ Labor cost if requires) |
| Pups weaning | Labor cost  |
| Daily checking and maintainance | Labor cost  |

\* If the injected mouse is from ERA’s group, each mouse costs 600sek because of purchasing animal and housing fee.

**Example: to order 3 injections. The cost is calculated based on estimation, only for showing how is each procedure charged.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Procedure** | **Working description and estimate time consuming** | **Sum cost (SEK)** | **Sum cost (SEK) incl.INDI** |
| Setting plug  | Go through all females and pick estrous mice 8-10, 1h (no tick@lab) | 189x2=378 | 236x2=472 |
| Plug checking | Separate mice (around 5 pos) + tick@lab, 1h | 189x2=378 | 236x2=472 |
| Ultrasound checking | Pregnancy checking all 8-10 mice (3 pregnant mice) 2htick@lab + prepare single housed cage cards 1h | 189x6=1134+13x10=130+150x4=600=1864 | 236x6=1416+16x10=160+187x4=748=2324 |
| Ultrasound-guide nano injection | Pick up virus + gasing in virus, 0,5hInjection with 3 pregnant females, 3hSetup banch + cleaning up, 1htick@lab, 1h | 249x11=2739+195x3=585+167x8=1336=4660 | 311x11=3421+244x3=732+209x8=1672=5825 |
| Collection (pups/embryos) | Preparing tubesSacrificing animals + collectionClean up + tick@labHand over2,5h | 189x5=945+180x3=540=1485 | 236x5=1180+225x3=675=1855 |
| Pups weaning | Sacrificing the motherSplit females&males pupsTick@lab + move to housing room3h for 2 litters around 20 pups | 189x6=1134 | 236x6=1416 |
| Daily checking and maintainance | Checking animals + virus room every weekdayPreparing ready-to-use cagesOrder and refill consumable stuffsPack garbage2h/week, should be shared among groups | 189x4=756/week | 236x4=944/week |

**Price list of all services**

|  |  |  |  |
| --- | --- | --- | --- |
| **Procedure** | **Working description and estimate time consuming** | **Sum cost (SEK)** | **Sum cost (SEK) incl.INDI** |
| Setting plug  | Labor cost | 189kr/30min | 236kr/30min |
| Plug checking | Labor cost | 189kr/30min | 236kr/30min |
| Ultrasound checking | Labor cost  | 189kr/30min | 236kr/30min |
| Consumable cost for ultrasound checking | 13kr/mouse | 16kr/mouse |
| Equipment depreciation expense for ultrasound checking\* | 150kr/30min | 187kr/30min |
| Ultrasound-guide nano injection | Labor cost for injection | 249kr/30min | 311kr/30min |
| Consumable cost for ultrasound-guided nano-injection | 195kr/mouse | 244kr/mouse |
| Equipment depreciation expense for injection\* | 167kr/30min | 209kr/30min |
| Collection (pups/embryos) | Consumable cost for collection | 180kr/mouse | 225kr/mouse |
| Labor cost (if requires) | 189kr/30min | 236kr/30min |
| Pups weaning | Labor cost | 189kr/30min | 236kr/30min |
| Daily check | Labor cost | 756kr/week | 944kr/week |
| Other services | Labor cost | 189kr/30min | 236kr/30min |

\*The time for equipment using is different from the time of labor.