Purchase Agreement

Contracting parties

Purchaser

Name: Charles University

Registered office: Ovocný trh 560/5, 116 36 Prague 1

Company identification No.: 002 16 208

Regarding: Faculty of Mathematics and Physics

Tax identification No.: CZ00216208

Represented by: prof. RNDr. Jan Kratochvíl, CSc., Dean

(hereinafter referred to as the "Purchaser")

and

Seller

Name: NMR Service GmbH

Registered office: Blumenstr. 70 Haus 3, 99092 Erfurt, Germany

Company identification No.: HRB 502497 Tax identification No.: DE 259462822 Represented by: Dr. Oliver Pecher, VP

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company incorporated in the Companies Register kept by the Register Court in Jena (Germany), identification no. / register HRB 502497.

(hereinafter referred to as the "Seller")

(hereinafter jointly referred to also as the "Contracting Parties" and individually as the "Contracting Party")

concluded on the below-mentioned day, month and year, in accordance with provision of Section 2079 et seq. of Act No. 89/2012 Coll., Civil Code (hereinafter referred to as the "Civil Code"), this

Purchase Agreement

(hereinafter referred to as the "Agreement")

Subject of the Agreement

1. This Agreement is entered into based on the results of a selection procedure for supplies, opened by the Purchaser, as a contracting authority, called "Console for Quadrupole Resonance Spectroscopy (NQR) 2" (hereinafter referred to as the "Selection Procedure" or the "Contract") and in accordance with tender documentation and tender of the Seller submitted within the above-mentioned Selection Procedure. The technical specification of the goods is an integral part hereof as Annex No. 1 hereto.

- 2. The Seller hereby undertakes to deliver and hand over under conditions agreed herein to the Purchaser the goods specified in Article II hereof and transfer to it ownership right to such goods.
- 3. The Purchaser undertakes to take over the goods delivered duly and in time and pay for them the agreed purchase price in the manner and term stipulated hereby.

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Specification of the Subject of Performance

- 1. Subject of performance hereof is supply of the goods with the Selection Procedure "Console for Quadrupole Resonance Spectroscopy (NQR) 2" and services connected therewith. Supplied goods must be new.
- 2. Technical specification of the subject of performance is given by the tender documentation and tender of the Seller, which are integral part hereof.
- 3. Part of the subject of performance hereunder is formed also by any and all documents necessary for takeover and use of the subject of performance. The Seller declares that the subject of performance complies with any and all conditions set by legal regulations for use of the subject of performance and that it handed over to the Purchaser any and all documents necessary for operating of the subject of performance, and it is liable to the Purchaser for that. The Seller undertakes to deliver to the Purchaser together with the supply of goods under Article II paragraph 1 hereof complete operating instructions in English, both in paper and electronic CD form (operating instructions must contain in particular detailed description of the supplied equipment, including all technical parameters, detailed equipment operating instructions, conditions for operation and use of the equipment, regulations concerning operational safety and health that must be complied with when operating the equipment).
- 4. Subject of performance hereunder is also transport of the goods to the place of performance, including subsequent disposal of the packaging, installation, putting of the device into operation and testing of its full functionality, technical and application training of 3 users (Purchaser's employees) in the place of performance and in the necessary scope, detailed informing on the operation and condition thereof, in the case of required SW necessary licenses and free service for the whole warranty period hereunder.

(all hereinafter referred to as the "Subject of Performance, Supply or Goods")

III Purchase Price and Payment Terms

- 1. Purchase price for the Goods excluding VAT is set at the amount of **EUR 153,000.00**, of which <u>EUR 120,000.00</u> constitutes the price of RF section and <u>EUR 33,000.00</u> constitutes the price of static single-channel high temperature probe.
 - 21 % VAT amounts to **EUR 32,130.00**.

Purchase price for the Goods including VAT amounts to **EUR 185,130.00**.

- 2. The purchase price is set as the highest admissible and final and it includes the whole Subject of Performance as defined in Article II hereof.
- 3. The Purchaser undertakes to pay the purchase price on the basis of invoices as follows. The Seller shall be entitled to issue the first invoice for the price of RF section as specified in Article III section 1 thereof after delivery and successful takeover of the RF section documented by the record on takeover at the Purchaser, with maturity of 30 calendar days.

- 4. The Seller shall be entitled to issue the second invoice for the price of static single-channel high temperature probe as specified in Article III section 1 thereof, with maturity of 30 calendar days, after delivery and successful takeover of the static single-channel high temperature probe documented by the record on takeover at the Purchaser.
- 5. The purchase price shall be considered as paid at the moment of crediting of the Seller's account with the invoiced amount.
- 6. The invoice must contain necessary requisites of the tax document within the meaning of valid Act No. 235/2004 Coll., on the Value Added Tax, as amended and it must contain:
 - a) designation of the tax document and its serial number
 - b) identification data of the Purchaser
 - c) identification data of the Seller
 - d) name of the bank and number of the account, to which the payment shall be made
 - e) description of the performance
 - f) date of issuing and sending of the invoice
 - g) date of provision of taxable supply
 - h) maturity date
 - i) amount excluding VAT, amount of VAT and total amount including VAT
 - j) signature, in the case of electronic sending name of the person, who issued the invoice
 - k) name of the project, reg. No. of the project
 - I) text " This project is co-financed by the European Union European Regional Development Fund within Operational Programme Research, Development and Education."
- 8. The Purchaser shall be entitled, before the invoice maturity period expires, to return the invoice unpaid, if the invoice does not include requisites set hereby or if such data are incorrect. The Seller shall be obliged, according to the nature of incorrectness, to correct the invoice or draw up a new invoice. In such case the Purchaser shall not be in delay in payment of the price for the Goods. At the moment of delivery of the properly completed or corrected invoice a new 30-day maturity period of the invoice shall commence.
- 9. In the case that, as of the date of provision of taxable supply, the conditions of the so-called unreliable payer are fulfilled at the Seller or if the Seller states in the invoice other account for payment of the purchase price than the taxable supply account, which is published by the tax administrator for the Seller in the manner enabling remote access, the Purchaser shall be entitled to pay part of financial obligation for payment of the purchase price to the Seller at the amount of calculated VAT directly to the account of the competent tax administrator. By the procedure under this paragraph the Purchaser's financial obligation towards the Seller at the amount of the value added tax paid by the Purchaser shall be considered as fully satisfied.

Place and Period of Performance, Delivery Terms

- 1. Place of performance is the Purchaser's building at the address V Holešovičkách 747/2, 180 00 Praha 8.
- 2. The Seller shall deliver the Goods mentioned in Article II hereof to the Purchaser, install them, put into operation, test their full functionality and train the Purchaser's

- operators in accordance with Article II hereof at the <u>latest within 9 calendar months</u> <u>from the effectiveness of the contract, no later than 31 December 2019.</u>
- 3. The Seller shall be entitled to deliver the Goods also before the term stated in previous paragraph of this Article hereof. In such case it shall inform the Purchaser on exact date of delivery of the Goods, at the latest within 10 business days before the supply.
- 4. The Seller's obligation to deliver the Goods shall be considered as fulfilled hereunder, if the Goods were:
 - a) handed over to the Purchaser duly and in time, including the respective documentation
 - b) installed, put into operation and if their full functionality was tested duly and in time
 - c) if the operators (3 users-employees of the Purchaser) were trained duly and in time
 - d) taken over by the Purchaser by takeover record duly and in time.
- 5. After fulfillment of supply of the Goods the handover record shall be drawn up on handover and takeover of the Subject of Performance, which shall contain:
 - a) name and registered office of the Seller and Purchaser
 - b) designation of the Purchase Agreement
 - c) designation of the delivered Subject of Performance, including serial number
 - d) date of delivery, installation and training of the Purchaser's operators
 - e) condition of the Subject of Performance at the moment of handover and takeover
 - f) list of documents handed over
 - g) list of trained persons
 - h) signatures of authorized representatives of the Contracting Parties.
- 6. The Purchaser shall be obliged to reproach the Seller for apparent defects at delivery of the Goods at takeover of the Goods, the Purchaser shall be obliged to inform the Seller on hidden defects without undue delay after it finds them out.

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Ownership Right to the Goods and Risk of Damage to the Goods

- 1. The Purchaser shall acquire the ownership right to the Goods at the moment of full payment of the purchase price.
- 2. Risk of damage to the Goods shall pass over to the Purchaser at the moment of handover and takeover of the Goods from the Seller based on the handover record.

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Liability for Defects, Quality Guarantee

- The Seller provides quality guarantee of 12 months for each part of the Subject of Performance. In the case that the Seller offers longer guarantee period, duration of the guarantee period shall be governed by the Seller's offer. The guarantee period shall commence on the date of due takeover of the Goods by the Purchaser on the basis of the handover record.
- The Seller undertakes to provide the Purchaser for the whole period of validity hereof
 with technical support and guarantee service in accordance with conditions stated
 already in the Seller's tender or in the tender documentation of the Contract, which
 are integral part hereof.
 - Notifying of guarantee defects and need of guarantee services shall be carried out by the Purchaser to the Seller to the following contact details:

3. In the case that the complaint is made through e-mail, the day of lodging of the complaint claim (i.e. the claim from provided quality guarantee) shall be considered to be the day of provable sending of the Purchaser's e-mail to the Seller's e-mail address stated in paragraph 2 of this Article.

4. If the Seller does not start settling of the Purchaser's complaint hereunder, the Purchaser shall be entitled to remove the claimed defect by the third professional party and the costs connected with such repair shall be at the Seller's expense and the Seller undertakes to pay such costs to the Purchaser upon its written call delivered to the Seller's registered office.

VII

Contractual Penalty and Interest on Overdue Payment

- 1. In the case that the Purchaser is in delay in payment of the purchase price, it shall be obliged to pay to the Seller for each, even commenced calendar day of delay in payment hereunder, contractual penalty of 0.05 % of the total purchase price.
- 2. If the Seller is in delay in performance hereunder, it shall be obliged to pay to the Purchaser contractual penalty:
 - a) for each, even commenced calendar day of delay in fulfillment of the supply hereunder, contractual penalty of 0.1 % of the total purchase price
- 3. The Contracting Party, which breaches the duties arising herefrom, shall be obliged to pay to the other Contracting Party the agreed contractual penalty at the amount under this Article for each breach of its duty, within 15 days from the day of delivery of the written call of the rightful party sent to the address of the liable party, stated in the heading hereof or to its last known address. Right to compensation for the arisen damage shall not be affected by payment of the contractual penalty under this Article.
- 4. Payment of the contractual penalty shall not relieve the liable party from the duty to fulfill its obligation confirmed by the contractual penalty.

VIII Term of the Agreement

- 1. This Agreement shall become valid and effective on the day of its publication in the Contracts Register pursuant to Act No. 340/2015 Coll., on Special Conditions for the Effectiveness of Certain Contracts and is concluded for an indefinite period of time, until the due fulfillment of the Subject of Performance.
- 2. The Contracting Party affected by the breach of the duty may withdraw herefrom unilaterally for material breach hereof, and material breach hereof shall be considered to be in particular:
 - a) on the part of the Purchaser non-payment of the purchase price hereunder in the period longer than 30 days after maturity day of the respective invoice;
 - b) on the part of the Seller, if it does not deliver the subject hereof duly and in time in the period longer than 30 days after the agreed performance period.
- 3. The Contracting Party affected by the breach of the duty shall be obliged to inform the other Contracting Party on its withdrawal from the Agreement in writing to the address stated in the heading hereof or to its last known address.

4. Withdrawal from the Agreement shall not affect the right of the rightful party to the contractual penalty or the right of the rightful party to the compensation for damage.

IX Other Provisions

- 1. The Purchaser undertakes to enable access of the determined employees of the Seller to the premises of its building for the purpose of performance hereof and assembling of the Subject of Performance and for the purpose of subsequent repairs and service work.
- 2. Legal relations not regulated hereby, as well as legal relations arising herefrom shall be governed by applicable provisions of the Civil Code and other valid legal regulations of the Czech Republic.
- 3. It is agreed that possible disputes arisen herefrom shall be solved by the parties mainly by mutual agreement, amicable settlement. For the proceedings on possible disputable claims, jurisdiction of general courts is agreed. Governing law shall be the law of the Czech Republic.
- 4. The Purchaser shall be entitled to check performance of the subject hereof by the Seller.
- 5. The Seller is aware that within the meaning of provision of Section 2 letter e) of Act No. 320/2001 Coll., on Financial Control in the Public Administration and on the amendment of some act (Act on Financial Control), as amended, it shall be obliged to cooperate during performance of financial control.
- 6. The Seller shall be obliged and bound under Section 2 letter e) of Act No. 320/2001 Coll., on Financial Control, as amended, to allow access and control to authorized persons (employees of the Ministry of Finance, European Commission, European Court of Auditors, Supreme Audit Office and other authorized public administration bodies) to its buildings and on the lands to verify fulfillment of conditions of the grant agreement, if the subject of purchase is or is to be fully or partly financed from funds of public budgets in the form of subsidy, for the period of term of the grant agreement and for the period of sustainability of the project. The Seller shall be obliged to provide the controlling and auditing entities with any and all necessary information and required documents relating to supplier activities hereunder.
- 7. The Seller shall be obliged to be, for the whole period of performance hereunder, insured by insurance policy, subject of which shall be liability insurance for damage caused by the Seller to the third party at the minimum amount of Purchase Price. The Purchaser shall be entitled to ask the Seller anytime for presenting of the insurance policy and the Seller shall be obliged to present it to the Purchaser without undue delay. If the Seller loses during performance hereof the liability insurance for damage caused by the Seller to the third party, the Seller shall be obliged to renew the insurance. Breach of the Seller's duties hereunder shall be considered as material breach of the Agreement.

X Final Provisions

- 1. This Agreement may be changed or amended only by written agreement of the Contracting Parties, in the form of the numbered amendment.
- 2. Rights arisen herefrom must not be assigned without prior written consent of the other Party. Exchange of e-mail or other electronic messages shall be considered as written form for this purpose.

- 3. This Agreement contains entire agreement on the subject hereof and all requisites that the Parties were to and wanted to agree in the Agreement and which they consider as important for binding effect hereof. No manifestation of the Parties made during negotiations on this Agreement or manifestation made after conclusion hereof must be construed in contradiction with express provisions hereof and shall establish any obligation of any of the Parties.
- 4. The Parties do not wish so that beyond scope of express provisions hereof any rights and duties were derived from existing or future practice established between the Parties or customs maintained generally or in sector relating to the Subject of Performance hereof, unless expressly agreed in the Agreement otherwise. Besides the above-mentioned facts the Parties confirm that they are not aware of any commercial practice established between them so far.
- 5. The Contracting Parties declare that they have read the Agreement, they agree with its content and that it was agreed after mutual negotiations under their free will, definitely, seriously and legibly, not in distress under markedly disadvantageous conditions. In witness whereof the Contracting Parties affix their signatures.
- 6. This Agreement is drawn up in three counterparts valid as original and the Purchaser shall receive two counterparts and the Seller one counterpart.
- 7. Integral part of this Agreement is formed by the following Annexes:
 Annex No. 1 Technical specification

Purchaser

Charles University prof. RNDr. Jan Kratochvíl, CSc., Dean

Seller

NMR Service GmbH Dr. Oliver Pecher, VP c/o Dr. Marco Braun, CEO

Annex No. 1 - Technical specification

I. RF section

• Frequency synthesis and pulse generation

Console has to operate with min. two frequency synthesizers with digital frequency synthesis, each in the frequency range 2kHz -300 MHz or broader, providing precise digital generation of phase and amplitude (phase resolution 0.0055° or better, frequency resolution 0.2Hz or better, stability 10⁻⁹/day or better). 20 ns or shorter timing for change of phase-continuous frequency switching over 20 MHz. Pulse rise time (10% to 90%) 30 ns or shorter. Waveform memory with at least 64 milion point for pulse shaping should be included. Amplitude change of rf output for each channel should be done within (at most) 40 ns, at least in the control range of 96 dB, in the highly linear modulation, step in attenuation 0.5 dB or lower. Pulse generation control should be possible with a timing resolution 10 ns or better. Fast minimum of recycle delay.

Power amplifiers

Two amplifiers:

- linear RF power amplifier in the range 100 kHz- 30 MHz or broader, pulse power 1 kW, pulse width up to at least 100 ms
- linear RF power amplifier in the range 500 kHz -310 MHz or broader, pulse power 1 kW, pulse width at least up to 300 ms
- Receiving system and signal detection
 - Two probe interfaces with linear preamplifiers and frequency filters
 - each preamplifier module with signal amplification 32 dB or higher, with power cable, noise figure 1.2 dB or lower
 - set of passive transcoupler modules continuously covering the range 0.1-300 MHz, >1 kW power handling
 - RF double shielded cable kits
 - Receiving system

Wide bandwidth (at least 0.2 – 300 MHz) of the receiver, analog-to-digital converter (ADC) with at least 14-bit resolution and 50 MHz data rate digitizing at intermediate frequency. Digital receiver control for signal accumulation with real time digital filtering in combination with oversampling and digital filtering with at least 5 MHz bandwidth. Total gain 85 dB or higher, variable gain at least 65 dB. Receiver recovery time 1 us or shorter, fast acquisition recycle time 50 us+dwell time.

- Quad core PC workstation with 24 ´´ TFT monitor and licence for operating system, Ethernet, software and licence for instrument control and processing of spectroscopy data with free licence updates
- System integration in 19 ' rack

II. Static single-channel high temperature probe

- Suited for wide-bore NMR magnet
- Variable-temperature capabilities of the probe
 - VT range: from RT to 1000°C

- o non magnetic heater, thermocouple temperature sensor
- External VT and flow controller enabling to set heater power and temperature incl. temperature profiles, to set flow for air and water cooling, temperature and flow monitoring
- RF circuit with tuning and matching, frequency range should cover basic interval at least 23-130 MHz leaving the possibility to modify the frequency band by exchangeable coils and/or inserts
- Shipping and handling