



PURCHASE CONTRACT
FLOW INJECTION SYSTEM FOR MICROFLUIDIC ANALYSIS

SELLER

Name **FIAlab Instruments, INC.**
Registered office 2151 N Northlake Way Seattle, WA 98275 USA
Comp. ID No (IČO) ZH: 601 921 182 Tax ID No (DIČ) 91-1948160
Represented by Ilkka Lahdesmaki

AND

BUYER

Name **Global Change Research Institute CAS**
Registered office Bělidla 986/4a, Brno, post code 603 00, Czech Republic
Comp. ID No (IČO) 86652079 Tax ID No (DIČ) CZ86652079
Registered at Register of public research institutions
Represented by prof. RNDr. Ing. Michal V. Marek, DrSc., dr. h. c., Director

Pursuant to section 2079 of Civil Code, the above parties conclude a contract of the following wording:

I. SUBJECT MATTER OF CONTRACT

1. The seller undertakes that it will hand over the item which is subject matter of purchase to the buyer and that it will enable the buyer to gain the ownership right for it and the buyer undertakes to take the item over and to pay the purchase price to the seller.
2. The Seller also undertakes to hand the documents concerning the matter to the Buyer, perform the installation and verification of the correct installation of the item. The Seller also undertakes to perform servicing of the item and training of the operators and maintenance.

II. SUBJECT MATTER OF PURCHASE

1. The subject matter of purchase is delivery of Flow Injection System for Microfluidic Analysis.
2. The subject matter of purchase will correspond to the technical specification which is in Annex No 1 of this contract.
3. The parts and accessories of the subject matter of contract will be specified in more detail in Annex No 1 of this contract.
4. The subject matter of purchase will be handed over in accordance with the following documents (arranged according to how binding they are):

- a) This contract
 - b) Written instructions from the buyer
 - c) Technical standards relating to the materials and activities performed on the basis of this contract
5. Together with the subject matter of purchase, the seller will also hand over to the buyer the documents necessary for takeover and use of the subject matter of purchase. These documents include mainly the following:
- a) Technical standards relating to the materials and activities performed on the basis of this contract.
 - b) Detailed instructions or manuals or manuals for using the subject of purchase.
 - c) Detailed instructions or manuals or manuals for maintenance of the item of purchase.
 - d) Calibration sheets/protocols.
- The documents will be prepared in Czech or English language.
6. The seller undertakes to perform servicing of the subject matter of purchase during the guarantee period.
7. The Seller agrees to perform training of maintenance and operation of the subject of purchase in the duration of training at least for eight hours of training. The Seller agrees to perform the training of maintenance and operation of the subject of purchase by the time of submission of the subject of purchase at the latest.

III. HANDOVER OF SUBJECT MATTER OF PURCHASE

1. The complete and defect free subject matter of purchase will be handed over latest within **10 weeks of signing of this contract**.
2. Earlier fulfilment is possible.
3. Shipment condition: **INCOTERMS 2010 – DAP, Drásov 470, 664 24 Drásov, Czech Republic**, unless the parties agree otherwise.
4. If the seller delivers a larger number of items than agreed, the purchase contract is concluded also for the excess amount, provided that the price of the excess amount is included in the total purchase price
5. The seller undertakes to hand the subject matter of purchase over unused and without any legal or material defects.
6. The effects of handover of the item do not occur before the moment when the buyer is enabled to handle the item at the place of its handover.
7. Latest within 5 working days from the day on which the subject matter of purchase is handed over, the buyer will inspect it and check its apparent properties and quantity. Within the same deadline, the buyer will either confirm takeover of the subject matter of purchase or state its objections concerning the quantity and apparent properties of the subject matter of purchase. If the buyer neither confirms takeover of the subject matter of purchase nor states its objections concerning the quantity and apparent properties of the subject matter of purchase, it is understood that the buyer took the subject matter of purchase over and that it does not have any objections concerning its apparent properties and quantity.
8. Fulfilment cannot be refused, not even in case when the conditions specified in section 1912 (1) of Civil Code are fulfilled (mutual fulfilment).

Flow Injection System for Microfluidic Analysis

IV. PURCHASE PRICE

1. The purchase price for fulfilment according to this contract was agreed: **CZK 750,000 excl. VAT.**
2. The price is agreed as the highest permissible price including all the costs of the seller connected with fulfilment of this contract and price influence during fulfilment of this contract.
3. The price including also shipping, packing and duty costs.
4. VAT at the statutory amount will be added to the price excluding VAT.

V. PAYMENT TERMS

1. The price for delivery of the subject matter of purchase and performing of service will be paid on the basis of one invoice, unless specified otherwise by the buyer. An annex to the invoice will be a copy of the confirmation that the subject matter of purchase was handed over.
2. All invoices will have the tax document details.
3. The due date of all the invoices is 25 days after the day on which the invoice is issued.
4. Within the due date, the buyer is entitled to return an invoice containing mistakes. The seller is obliged to submit a new or corrected invoice with a new due date.
5. The seller is obliged to deliver the invoice to the address of the registered office of the buyer latest within 5 working days after the takeover of the subject matter of purchase is confirmed.
6. The invoice is paid on the day when the corresponding price is charged off the buyer's account.
7. No advance is provided. No deposit is provided.

VI. QUALITY GUARANTEE AND COMPLAINTS CONCERNING DEFECTS

1. The seller provides quality guarantee for the subject matter of purchase. For the whole guarantee period, the subject matter of purchase:
 - a) Will be fit for using for the purpose specified in this contract.
 - b) Will be fit for using for the usual purpose.
 - c) Will retain its usual properties.
2. The seller provides **quality guarantee** for a period of **24 months**.
3. The guarantee period will start to run on the day when the takeover of the subject matter of purchase is confirmed. The guarantee period is extended by the time starting on the day when a complaint is made and finishing on the day when the defect is rectified.
4. The buyer is not in delay with claiming a defect if the buyer claims the right arising from the defect which the subject matter of fulfilment has at the moment of its handover and arising from the defect under guarantee in writing within 30 days from the day when the buyer finds out about the defect.
5. The seller is not in delay with the defect rectification if without any unnecessary delays after the defect has been claimed the seller starts to perform activities aimed at the defect rectification, continues this activities duly and **latest within 8 weeks after the defect is claimed** the defect will be rectified or the subject matter of purchase will be replaced with a defect free product.

VII. INTERESTS ON OVERDUE PAYMENTS AND CONTRACTUAL PENALTIES

1. The party which is in delay with payment of its debt can be asked by the other party, if it fulfils duly its contractual and statutory obligations, to pay an interest on overdue payment, unless

the party which is overdue is not responsible for the delay. The parties agree **an interest on overdue payment** at the amount of **0.025 % of the due amount per day**.

2. The buyer will charge a **contractual penalty** at the amount of **CZK 2,800 per day** in the following cases:
 - a) Delay of the seller with handover of the subject matter of purchase.
 - b) Delay with rectification of a defect which the subject matter of purchase has at the moment of its handover.
 - c) Delay with rectification of a defect under guarantee.
3. A separate invoice will be issued for the contractual penalty with the due date of 30 days. The day of taxable supplies is considered to be the day on which the invoice is issued.
4. The parties agree that the obligation to pay a contractual penalty does not affect the right for damage compensation at the amount at which it exceeds the contractual penalty. If a contractual penalty is decreased by the court, the right for damage compensation remains the amount at which the damage exceeds the amount determined by the court as adequate and without any other limitations.

VIII. CONTRACT TERMINATION

1. The contract can be terminated by a written agreement.
2. The buyer can withdraw from the contract if it is breached grossly by the seller. A gross breach of the contract is also considered the following:
 - a) Delay of the seller with handover of the subject matter of purchase by more than 30 days.
 - b) Commencement of bankruptcy proceedings in which the seller is in the position of the debtor.
 - c) If it is found out that the bid of the seller connected with the public contract included incorrect information.
3. The seller can withdraw from the contract if it is breached grossly by the buyer. A gross breach of the contract is also considered the following:
 - a) Commencement of bankruptcy proceedings in which the buyer is in the position of the debtor.
 - b) Delay of the buyer with payment of an invoice by more than 30 days.
4. Withdrawal must be made in writing and it is effective on the day when it is delivered to the other party.
5. Withdrawal from the contract does not result in cessation of the mutual sanction liability of the parties.

IX. RESPONSIBLE PERSONS OF THE PARTIES

1. The representative of the buyer is Ing. Jan Červený, Ph.D., cerveney.j@czechglobe.cz. This representative of the buyer can act in any way on behalf of the seller in connection with this contract but it cannot change or terminate this contract.
2. The representative of the seller is *Ilkka Lahdesmaki*, ilkka@flowinjection.com. This representative of the seller can act in any way on behalf of the seller in connection with this contract but it cannot change or terminate this contract.

X. JOINT PROVISIONS

1. The ownership right to the subject matter of purchase is transferred at the moment when the subject matter of purchase is handed over to the buyer.
2. Without consent from the other party granted in writing, none of the parties can transfer a receivable, a debt arising from this contract or this contract itself to a third party.
3. Each of the parties takes over the risk of change of circumstances pursuant to section 1765 of Civil Code concerning its debts arising on the basis of this contract.
4. No rights and obligations of the parties can be inferred from the practice established between the parties or customs observed in general or in the field concerning the subject matter of this contract.
5. If any of the provisions of this contract shows to be imaginary (petty), the impact of this defect on the other provisions of the contract will be assessed similarly pursuant to section 576 of Civil Code.
6. The parties exclude application of the following provisions of Civil Code to this contract: section 557 (contra proferentem rule).
7. The seller is aware of the fact that it is a person obliged to cooperate during performance of tax inspection. The seller has to oblige all its subcontractors for cooperation during performance of tax inspection.
8. The parties agree that the court competent for hearing and deciding of any possible disputes arising between the buyer and the seller pursuant to this contract or in connection with it is a general court of the buyer.

XI. FINAL PROVISIONS

1. This contract is governed by Czech legal regulations with the exception of colliding provisions. All the connected negotiations are held in Czech or English language.
2. In case of discrepancy between Czech and English versions of this contract shall prevail always Czech version.
3. This contract does not depend on another contract. No other contract depends on this contract.
4. This contract contains full agreement concerning the subject matter of contract and all the particulars the parties were supposed to and wanted to settle in the contract and which are considered for the binding character of this contract. No statement of the parties made during negotiations concerning this contract or after this contract is concluded may be interpreted in contradiction with the explicit provisions of this contract and it does not establish a liability of any of the parties.
5. This contract can only be changed in writing in the form of numbered supplements to this contract. The parties can contest invalidity of the contract or its supplement anytime due to failure to observe its form, even if fulfilment has already been commenced.
6. The contracting parties acknowledge that for its effectiveness this contract requires the publication in the registry of contracts pursuant to the Act no. 340/2015 Coll., and they agree with this publication. The Buyer secures sending of the contract to the registry of contracts immediately after the contract is signed by both contracting parties. The Buyer undertakes to inform the other party about the registration by sending a copy of the confirmation of the publication from the administrator of the registry of the contracts to the other party without undue delay after the Buyer himself receives this confirmation.
7. This contract is prepared in two counterparts and each party shall obtain one of them.
8. An internal part of this contract is:
 - a) Annex No 1: Technical specification of subject matter of purchase

Flow Injection System for Microfluidic Analysis

9. This Agreement shall take effect upon the date of its publication in the registry of contracts.

March 26, 2018 on this day

Brno on this day 12.04.2018

Ilkka Lahdesmaki, Ph.D.
General Manager
FIALab Instruments

prof. RNDr. Ing. Michal V. Marek, DrSc., dr. h. c.
Director
Global Change Research Institute CAS

MANUFACTURER: FIALAB INSTRUMENTS, INC.

TYPE: OMNISIA+ : FLOW INJECTION SYSTEM FOR MICROFLUIDIC ANALYSIS

1. FLOW INJECTION SYSTEM FOR MICROFLUIDIC ANALYSIS

General description

Flow Injection capillary analytical system will be used mainly with connection to membrane introduction mass spectrometry as physical-chemical detector for automated determination of gases and volatile compounds (including isotopic resolution) in solutions or microbial suspensions. Moreover will be used for determination of specific cell metabolites important for biotechnological production of biofuels using measurements of activity of proposed enzymatic reactions.

Technical parameters of the system has to meet following requirements:

Peristaltic pump with adjustable and stable flowrate:

1. Number of rollers: min. 8
2. Flowrate: interval min. 500 – 5 000 $\mu\text{l}\cdot\text{min}^{-1}$
3. Secured continual flow without fluctuations

Syringe pump with high resolution of adjustable flowrate:

4. Resolution per full stroke: min. 48 000 steps
5. Flowrate: range min. 10 – 10 000 $\mu\text{l}\cdot\text{min}^{-1}$
6. Possibility to change syringe pump volume: volumes starting at min. 50 μl to min. 12 ml
7. Technical solution for min. 6 different injection volumes including minimal and maximal volume offered in point 6. (above) will be part of delivery

Multi-position valve for dosage control:

8. Number of channels: min. 8

Control SW

9. Support for Windows®
10. Flexible scripting control of the system supported by the control SW
11. Possibility for external triggers (e.g. I/O module) of predefined user scripts supported by control SW, using min. of 8 independent signals

System heating:

12. All parts of the system will be heated (including syringe pump, multi-position valve, measuring flow-cell, fluid delivery tubing)
13. Temperature regulation will allow to set temperature starting from ambient temperature to be at least 40°C

Flow-cell:

14. Construction of the cell will allow gas diffusion from medium through polymer membrane
15. Connectivity with own custom made tubular membrane. Membrane outer diameter is 2 mm and length 30 mm.

Tubing and delivery system:

16. At least 2 different tubing diameters and compatible connectors
17. Tubing cutter
18. At least 2 mixing tees (T shape type)

Computer:

19. Dedicated laptop with Windows® operating system preinstalled